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 NEWS 4 JAN 27  A new search aid, the Company Name Thesaurus, available in
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 NEWS 5 FEB 05  German (DE) application and patent publication number format
          changes
 NEWS 6 MAR 03  MEDLINE and LMEDLINE reloaded
 NEWS 7 MAR 03  MEDLINE file segment of TOXCENTER reloaded
 NEWS 8 MAR 03  FRANCEPAT now available on STN
 NEWS 9 MAR 29  Pharmaceutical Substances (PS) now available on STN
 NEWS 10 MAR 29  WPIFV now available on STN
 NEWS 11 MAR 29  New monthly current-awareness alert (SDI) frequency in
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 NEWS 12 APR 26  PROMT: New display field available
 NEWS 13 APR 26  IFIPAT/IFIUDB/IFICDB: New super search and display field
          available
 NEWS 14 APR 26  LITALERT now available on STN
 NEWS 15 APR 27  NLDB: New search and display fields available
 NEWS 16 May 10  PROUSDDR now available on STN
 NEWS 17 May 19  PROUSDDR: One FREE connect hour, per account, in both
May
          and June 2004
 NEWS 18 May 12  EXTEND option available in structure searching
 NEWS 19 May 12  Polymer links for the POLYLINK command completed in
REGISTRY
 NEWS 20 May 17  FRFULL now available on STN

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          MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
          AND CURRENT DISCOVER FILE IS DATED 26 APRIL 2004
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=> s OX102
L1         0 OX102

=> s OX 102
L2         0 OX 102

=> s OX2R or OX2 receptor?
L3       196 OX2R OR OX2 RECEPTOR?

=> s l3 and antibod?
L4        10 L3 AND ANTIBOD?

=> dup rem l4
PROCESSING COMPLETED FOR L4
L5         7 DUP REM L4 (3 DUPLICATES REMOVED)

=> d bib abs 1-
YOU HAVE REQUESTED DATA FROM 7 ANSWERS - CONTINUE? Y/(N):y

L5  ANSWER 1 OF 7  CAPLUS  COPYRIGHT 2004 ACS on STN
AN  2003:300844  CAPLUS
DN  138:302651
TI  Use of bispecific  ***antibodies***  to regulate immune responses
IN  Bigler, Michael E.; Cherwinski, Holly; Phillips, Joseph H.
PA  Schering Corporation, USA
SO  PCT Int. Appl., 36 pp.
    CODEN: PIXXD2
DT  Patent
LA  English
FAN.CNT 1
    PATENT NO.      KIND  DATE         APPLICATION NO.  DATE
    --------------- ----  -------      ---------------  --------
PI  WO 2003030835   A2  20030417     WO 2002-US32711  20021011
    WO 2003030835   A3  20031009
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
           CO, CR, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, HR, HU,
           ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LU, LV, MA, MD,
           MG, MK, MN, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SE, SG, SI, SK,
           SL, TJ, TM, TN, TR, TT, TZ, UA, UZ, VC, VN, YU, ZA, ZM, AM, AZ,
           BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
           CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
           PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
           NE, SN, TD, TG
    US 2003077282   A1  20030424     US 2002-270084   20021011
PRAI US 2001-329182P  P  20011012
AB  The authors disclose the use of bispecific  ***antibodies***  for
    treating diseases relating to the immune system.  Specific examples relate
    to bispecific  ***antibodies***  which recognize an activating receptor
    (e.g., Fc.epsilon.RI) and an inhibiting receptor (e.g., Fc.gamma.RIIB).

L5  ANSWER 2 OF 7  CAPLUS  COPYRIGHT 2004 ACS on STN
AN  2002:849661  CAPLUS
DN  137:347560
TI  Protein and cDNA sequence of human and mouse cytokine  ***ox2***
     ***receptors***
IN  Van der Vuurst de Vries, Anne-Renee; Galibert, Laurent J.
PA  Immunex Corporation, USA
SO  PCT Int. Appl., 64 pp.
    CODEN: PIXXD2
DT  Patent
LA  English
FAN.CNT 1
    PATENT NO.      KIND  DATE         APPLICATION NO.  DATE
    --------------- ----  -------      ---------------  --------
PI  WO 2002088164   A1  20021107     WO 2002-US13087  20020425
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
           CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
           GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
           LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
           PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
           UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
           TJ, TM
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
           CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
           BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRAI US 2001-286686P  P  20010426
AB  The invention relates to protein and cDNA sequence of human and mouse
    cytokine  ***ox2***  ***receptors***  . Ox2 is a transmembrane
    protein, designated as human leukocyte antigen CD200. The receptors are
    also useful in screening for inhibitors or agonists thereof. The
    invention further relates to prepn. of  ***antibody***  for  ***ox2***
     ***receptor***  .
RE.CNT 1    THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS
RECORD
          ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5  ANSWER 3 OF 7  BIOSIS  COPYRIGHT 2004 BIOLOGICAL ABSTRACTS
INC. on STN
AN  2001:548413  BIOSIS
DN  PREV200100548413
TI  The electrophysiological analysis of orexin-neurons.
AU  Yamanaka, A. [Reprint author]; Tsujino, N. [Reprint author]; Tominaga, M.;
    Masu, M. [Reprint author]; Yamamoto, M. [Reprint author]; Katsumoto, T.
    [Reprint author]; Goto, K. [Reprint author]; Sakurai, T. [Reprint author]
CS  University of Tsukuba, Tsukuba, Japan
SO  Society for Neuroscience Abstracts, (2001) Vol. 27, No. 2, pp. 1679.
    print.
    Meeting Info.: 31st Annual Meeting of the Society for Neuroscience. San
    Diego, California, USA. November 10-15, 2001.
    ISSN: 0190-5295.
DT  Conference; (Meeting)
    Conference; Abstract; (Meeting Abstract)
LA  English
```

ED Entered STN: 21 Nov 2001
Last Updated on STN: 25 Feb 2002
AB Orexins (hypocretins) are a pair of neuropeptides that are implicated in energy homeostasis and arousal. The actions of orexins are mediated via two G protein-coupled receptors named the orexin-1 (OX1R) and orexin-2 receptor (***OX2R***). Prepro-orexin mRNA is upregulated upon fasting, suggesting the orexin system play roles in the maintaing the energy homeostasis. It is difficult to investigate the character of orexin neurons using electrophysiological technique, because to identify orexin neurons morphologicaly from other neurons is impossible. We tagged orexin neurons in transgenic mice, in which orexin neurons specifically express green fluorescent protein (GFP). We have previously reported transgenic studies in which the 3-2-kb fragment of the 5'-upstream region of the human prepro-orexin gene is sufficient to express the lacZ gene in orexin neurons. Immunohistochemical experiments using anti-orexin ***antibody*** revealed that 80% of orexin neurons expressed GFP in two-lines of transgenic mice. Orexin neurons were dissociated from lateral hypothalamus and were adhered on slide glass for electrophysiological experiments. Spontaneous action potential was recorded by whole-cell patch clamp technique using current-clamp mode. Leptin inhibits, while ghrelin activates the activity of orexin neurons. Our present study demonstrated that orexin-containing neurons are sensing peripheral metabolic signals and control feeding behavior and vigilance to maintain energy homeostasis.

L5 ANSWER 4 OF 7 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2001:513615 BIOSIS
DN PREV200100513615
TI Orexin-A (OX-A) induced delayed onset of paradoxical sleep (PS) in the rat is mediated via orexin-1 receptors (OX1R).
AU Smith, M. I. [Reprint author]; Piper, D. C. [Reprint author]; Duxon, M. S. [Reprint author]; Upton, N. [Reprint author]
CS Neuroscience, GlaxoSmithkline, Harlow, Essex, UK
SO Society for Neuroscience Abstracts, (2001) Vol. 27, No. 1, pp. 1090. print.
Meeting Info.: 31st Annual Meeting of the Society for Neuroscience. San Diego, California, USA. November 10-15, 2001.
ISSN: 0190-5295.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 7 Nov 2001
Last Updated on STN: 23 Feb 2002
AB The novel neuropeptide OX-A modulates the sleep wake cycle such that intracerebroventricular (icv) application to rats increases arousal, reduces slow wave sleep 2 and PS and delays PS onset (Piper et al. 2000 Eur J Neurosci 12:726-30). The contribution of OX1R and ***OX2R*** to this OX-A effect is still unknown. Using the selective OX1R antagonist SB-334867-A (Duxon et al. 2001 Psychopharmacol 153:203-9) we investigate the role of OX1R in OX-A delayed PS onset. Male rats prepared for frontal-occipital electroencephalograph, nuchal muscle electromyograph recording and lateral ventricle cannulae received vehicle or OX-A (10mug) icv at the lights off:on interface in combination with vehicle or SB-334867-A (10 or 30mg/kg ip) 30min pre-icv injection. The latency to onset of the first gtoreq10sec epoch of PS was measured. Following vehicle treatment PS latency was 57+-11min. OX-A administration significantly ($p<0.05$) increased this to 120+-25min. Pre-treatment with SB-334867-A at both 10 and 30mg/kg completely reversed the effects of OX-A (64+-22 and 62+-17min, respectively, $p<0.05$). SB-334867-A, 10 and 30mg/kg alone, did not significantly ($p>0.05$) alter PS latency (44+-9 and 63+-18 min, respectively). An ***OX2R*** component to orexin sleep control is evident from its association with the narcoleptic phenotype of the Doberman pinscher (Lin et al. 1999 Cell 98:365-6). The present study with the selective OX1R antagonist SB-334867-A, together with the data of Bourgin et al. 2000 (J Neurosci 20(2):7760-5) showing that an OX1R neutralising ***antibody*** reverses OX-A effects on sleep stage architecture, demonstrates that the OX1R also has a role in orexinergic sleep modulation.

L5 ANSWER 5 OF 7 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 1
AN 2001:187889 BIOSIS
DN PREV200100187889
TI The unusual distribution of the neuronal/lymphoid cell surface CD200 (OX2) glycoprotein is conserved in humans.
AU Wright, G. J.; Jones, M.; Puklavec, M. J.; Brown, M. H.; Barclay, A. N. [Reprint author]
CS Sir William Dunn School of Pathology, South Parks Road, Oxford, OX1 3RE, UK
SO Immunology, (February, 2001) Vol. 102, No. 2, pp. 173-179. print.
CODEN: IMMUAM. ISSN: 0019-2805.
DT Article
LA English
ED Entered STN: 20 Apr 2001
Last Updated on STN: 18 Feb 2002
AB OX2 (CD200) is a type-1 membrane glycoprotein that contains two immunoglobulin superfamily domains and which is expressed on a variety of lymphoid and non-lymphoid cells in the rat. The recent characterization of a receptor for OX2 (***OX2R***) on myeloid cells, and the phenotype of an OX2-deficient mouse, suggests that OX2 may regulate myeloid cell activity in anatomically diverse locations. Here we report the tissue distribution of the human homologue of the rat OX2 glycoprotein using a new monoclonal ***antibody*** (mAb), OX104, raised against recombinant human OX2. Human OX2 was expressed at the cell surface of thymocytes, B cells, T cells, neurons, kidney glomeruli, tonsil follicles, the syncytiotrophoblast and endothelial cells. This broad, but not ubiquitous, distribution pattern is very similar to that observed in rats, suggesting that OX2 may regulate myeloid cell activity in a variety of tissues in humans.

L5 ANSWER 6 OF 7 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 2
AN 2001:79096 BIOSIS
DN PREV200100079096
TI Distribution of OX2 antigen and ***OX2*** ***receptor*** within retina.
AU Dick, Andrew D. [Reprint author]; Broderick, Cathryn; Forrester, John V.; Wright, Gavin J.
CS Division of Ophthalmology, Bristol Eye Hospital, University of Bristol, Lower Maudlin Street, Bristol, BS1 2LX, UK
a.dick@bristol.ac.uk
SO IOVS, (January, 2001) Vol. 42, No. 1, pp. 170-176. print.
DT Article
LA English
ED Entered STN: 7 Feb 2001
Last Updated on STN: 12 Feb 2002
AB Purpose. OX2 is a member of the immunoglobulin superfamily expressed on a broad range of tissues including neurons of the central and peripheral nervous systems, thymocytes, and endothelium. The recently identified ***OX2*** ***receptor*** (***OX2R***) is restricted to the surfaces of myeloid lineage cells, including microglia. Functional data have implicated the OX2- ***OX2R*** interaction as a myeloid downregulatory signal. The purpose of this study was to determine the distribution and extent of expression of OX2 and its receptor within the retina, a tissue developed to restrain immune-mediated inflammatory damage. Methods. OX2 and ***OX2R*** monoclonal ***antibodies*** (mAbs) were used to determine OX2 and ***OX2R*** protein expression, respectively, by flow cytometry of isolated myeloid-derived cells from normal and inflamed rat retina and by immunohistochemistry of serial sections of rat retina. For comparison, distribution of OX2 was documented using species-specific monoclonal ***antibodies*** in mouse and human retina. No ***OX2R*** mAbs are available for mouse or human detection. Results. OX2 was expressed on retinal vascular endothelium and glial fibrillary acidic protein (GFAP)-negative neurons in retina and optic nerve and on a subpopulation of CD45+ perivascular and juxtavascular cells. Within normal retina, ***OX2R*** was not detected on myeloid-derived cells. During experimental autoimmune uveoretinitis (EAU), expression of both OX2 and ***OX2R*** was noted on infiltrating leukocytes. Conclusions. Taking these results of the distribution of OX2 in normal and ***OX2R*** in inflamed retina with other functional data of OX2- ***OX2R*** interaction, it is suggested that the OX2- ***OX2R*** interaction has the potential to contribute to a novel pathway that suppresses and limits immunologic inflammatory damage within the retina.

L5 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:824408 CAPLUS
DN 133:360276
TI Animal ***OX2*** ***receptor*** homologs and cDNAs and their uses in diagnosis and therapy
IN Barclay, A. Neil; Brown, Marion H.; Gorman, Daniel M.; Lanier, Lewis L.; Wright, Gavin J.; Cherwinski, Holly; Phillips, Joseph H.; Hoek, Robert M.; Sedgwick, Jonathan D.
PA Medical Research Council, UK; Schering Corporation
SO PCT Int. Appl., 142 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000070045	A1	20001123	WO 2000-US12998	20000511
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LU, LV, MA, MD, MG, MK, MN, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1177295	A1	20020206	EP 2000-932337	20000511
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002543838	T2	20021224	JP 2000-618451	20000511
NZ 515382	A	20040326	NZ 2000-515382	20000511
ZA 2001009315	A	20030212	ZA 2001-9315	20011112
PRAI GB 1999-11123	A	19990513		
GB 1999-25989	A	19991103		
WO 2000-US12998	W	20000511		

AB Nucleic acids encoding mammalian, e.g., primate, receptors of OX2, purified proteins and fragments thereof. ***Antibodies*** , both polyclonal and monoclonal, are also provided. Method of using the compns.

for both diagnostic and therapeutic utilities are described.
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L6 4401 BARCLAY?/AU

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=> d his

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FILE 'BIOSIS, EMBASE, CAPLUS' ENTERED AT 16:52:04 ON 25 MAY 2004
L1 0 S OX102
L2 0 S OX 102
L3 196 S OX2R OR OX2 RECEPTOR?
L4 10 S L3 AND ANTIBOD?
L5 7 DUP REM L4 (3 DUPLICATES REMOVED)
L6 4401 S BARCLAY?/AU

=> s l3 and l6
L7 12 L3 AND L6

=> dup rem l7
PROCESSING COMPLETED FOR L7
L8 8 DUP REM L7 (4 DUPLICATES REMOVED)

=> d bib abs 1-
YOU HAVE REQUESTED DATA FROM 8 ANSWERS - CONTINUE? Y/(N):y

L8 ANSWER 1 OF 8 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 1
AN 2001:187889 BIOSIS
DN PREV200100187889
TI The unusual distribution of the neuronal/lymphoid cell surface CD200 (OX2) glycoprotein is conserved in humans.
AU Wright, G. J.; Jones, M.; Puklavec, M. J.; Brown, M. H.; ***Barclay, A.*** *** N.*** [Reprint author]
CS Sir William Dunn School of Pathology, South Parks Road, Oxford, OX1 3RE, UK
SO Immunology, (February, 2001) Vol. 102, No. 2, pp. 173-179. print.
CODEN: IMMUAM. ISSN: 0019-2805.
DT Article
LA English
ED Entered STN: 20 Apr 2001
Last Updated on STN: 18 Feb 2002
AB OX2 (CD200) is a type-1 membrane glycoprotein that contains two immunoglobulin superfamily domains and which is expressed on a variety of lymphoid and non-lymphoid cells in the rat. The recent characterization of a receptor for OX2 (***OX2R***) on myeloid cells, and the phenotype of an OX2-deficient mouse, suggests that OX2 may regulate myeloid cell activity in anatomically diverse locations. Here we report the tissue distribution of the human homologue of the rat OX2 glycoprotein using a new monoclonal antibody (mAb), OX104, raised against recombinant human OX2. Human OX2 was expressed at the cell surface of thymocytes, B cells, T cells, neurons, kidney glomeruli, tonsil follicles, the syncytiotrophoblast and endothelial cells. This broad, but not ubiquitous, distribution pattern is very similar to that observed in rats, suggesting that OX2 may regulate myeloid cell activity in a variety of tissues in humans.

L8 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:824408 CAPLUS
DN 133:360276
TI Animal ***OX2*** ***receptor*** homologs and cDNAs and their uses in diagnosis and therapy
IN ***Barclay, A. Neil*** ; Brown, Marion H.; Gorman, Daniel M.; Lanier, Lewis L.; Wright, Gavin J.; Cherwinski, Holly; Phillips, Joseph H.; Hoek, Robert M.; Sedgwick, Jonathan D.
PA Medical Research Council, UK; Schering Corporation
SO PCT Int. Appl., 142 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000070045	A1	20001123	WO 2000-US12998	20000511
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LU, LV, MA, MD, MG, MK, MN, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1177295	A1	20020206	EP 2000-932337	20000511
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002543838	T2	20021224	JP 2000-618451	20000511
NZ 515382	A	20040326	NZ 2000-515382	20000511
ZA 2001009315	A	20030212	ZA 2001-9315	20011112
PRAI GB 1999-11123	A	19990513		
GB 1999-25989	A	19991103		
WO 2000-US12998	W	20000511		

AB Nucleic acids encoding mammalian, e.g., primate, receptors of OX2, purified proteins and fragments thereof. Antibodies, both polyclonal and monoclonal, are also provided. Method of using the compns. for both diagnostic and therapeutic utilities are described.
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:887284 CAPLUS
DN 134:84009
TI Down-regulation of the macrophage lineage through interaction with OX2 (CD200)
AU Hoek, Robert M.; Ruuls, Sigrid R.; Murphy, Craig A.; Wright, Gavin J.; Goddard, Ruth; Zurawski, Sandra M.; Blom, Bianca; Homola, Margit E.; Streit, Wolfgang J.; Brown, Marion H.; ***Barclay, A. Neil*** ; Sedgwick, Jonathon D.
CS DNAX Research Institute of Molecular and Cellular Biology, Palo Alto, CA, 94304, USA
SO Science (Washington, D. C.) (2000), 290(5497), 1768-1771
CODEN: SCIEAS; ISSN: 0036-8075
PB American Association for the Advancement of Science
DT Journal
LA English
AB OX2 (CD200) is a broadly expressed membrane glycoprotein, shown here to be important for regulation of the macrophage lineage. In mice lacking CD200, macrophage lineage cells, including brain microglia, exhibited an activated phenotype and were more numerous. Upon facial nerve transection, damaged CD200-deficient neurons elicited an accelerated microglial response. Lack of CD200 resulted in a more rapid onset of exptl. autoimmune encephalomyelitis (EAE). Outside the brain, disruption of CD200-CD200 receptor interaction pptd. susceptibility to collagen-induced arthritis (CIA) in mice normally resistant to this disease. Thus, in diverse tissues OX2 delivers an inhibitory signal for the macrophage lineage.
RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 8 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2001:50733 BIOSIS
DN PREV200100050733
TI Macrophage regulation by the B7.1/2 homologue OX2?.
AU Hoek, R. M. [Reprint author]; Ruuls, S. R. [Reprint author]; Homola, M. E. [Reprint author]; Brown, M.; Streit, W. J.; Lemckert, F. A.; ***Barclay,*** *** A. N.*** ; Sedgwick, J. D. [Reprint author]
CS DNAX Research Institute, Palo Alto, CA, USA
SO FASEB Journal, (April 20, 2000) Vol. 14, No. 6, pp. A1232. print.
Meeting Info.: Joint Annual Meeting of the American Association of Immunologists and the Clinical Immunology Society. Seattle, Washington, USA. May 12-16, 2000.
CODEN: FAJOEC. ISSN: 0892-6638.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 24 Jan 2001
Last Updated on STN: 12 Feb 2002

L8 ANSWER 5 OF 8 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 2
AN 2000:440556 BIOSIS
DN PREV200000440556
TI Lymphoid/neuronal cell surface OX2 glycoprotein recognizes a novel receptor on macrophages implicated in the control of their function.
AU Wright, Gavin J.; Puklavec, Michael J.; Willis, Antony C.; Hoek, Robert M.; Sedgwick, Jonathon D.; Brown, Marion H.; ***Barclay, A. Neil*** [Reprint author]
CS Sir William Dunn School of Pathology, University of Oxford, South Parks Road, Oxford, OX1 3RE, UK
SO Immunity, (August, 2000) Vol. 13, No. 2, pp. 233-242. print.
ISSN: 1074-7613.
DT Article
LA English
OS Genbank-AF231392; Genbank-AF231393
ED Entered STN: 18 Oct 2000
Last Updated on STN: 10 Jan 2002
AB The OX2 membrane glycoprotein (CD200) is expressed on a broad range of tissues including lymphoid cells, neurons, and endothelium. We report the characterization of an ***OX2*** ***receptor*** (***OX2R***) that is a novel protein restricted to cells of the myeloid lineage. OX2

and its receptor are both cell surface glycoproteins containing two immunoglobulin-like domains and interact with a dissociation constant of 2.5 muM and koff 0.8 s-1, typical of many leukocyte protein membrane interactions. Pervanandate treatment of macrophages showed that ***OX2R*** could be phosphorylated on tyrosine residues. Blockade of the OX2- ***OX2R*** interaction with an ***OX2R*** mAb exacerbated the disease model experimental allergic encephalomyelitis. These data, together with data from an OX2-deficient mouse (R. M. Hoek et al., submitted), suggest that myeloid function can be controlled in a tissue-specific manner by the OX2- ***OX2R*** interaction.

L8 ANSWER 6 OF 8 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2001:82960 BIOSIS
DN PREV200100082960
TI Viral homologues of cell surface proteins OX2 and CD47 have potential to regulate macrophage function.
AU Wright, G. J. [Reprint author]; Vernon-Wilson, Elizabeth [Reprint author]; Foster, Mildred [Reprint author]; Brown, M. H. [Reprint author]; ***Barclay, A. N.*** [Reprint author]
CS Sir William Dunn School of Pathology, University of Oxford, Oxford, OX1 3RE, UK
SO Immunology, (December, 2000) Vol. 101, No. Supplement 1, pp. 50. print. Meeting Info.: Annual Congress of the British Society for Immunology. Harrogate, UK. December 05-08, 2000. British Society for Immunology. CODEN: IMMUAM. ISSN: 0019-2805.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 14 Feb 2001
Last Updated on STN: 12 Feb 2002

L8 ANSWER 7 OF 8 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2001:82882 BIOSIS
DN PREV200100082882
TI Interactions of cytoplasmic region of ***OX2R*** are consistent with an inhibitory function.
AU Hutchings, N. J. [Reprint author]; Brooke, G. [Reprint author]; Chalkley, R.; Wright, G. J. [Reprint author]; Brown, M. H. [Reprint author]; ***Barclay, A. N.*** [Reprint author]
CS Sir William Dunn School of Pathology, University of Oxford, Oxford, OX1 3RE, UK
SO Immunology, (December, 2000) Vol. 101, No. Supplement 1, pp. 24. print. Meeting Info.: Annual Congress of the British Society for Immunology. Harrogate, UK. December 05-08, 2000. British Society for Immunology. CODEN: IMMUAM. ISSN: 0019-2805.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 14 Feb 2001
Last Updated on STN: 12 Feb 2002

L8 ANSWER 8 OF 8 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2000:513968 BIOSIS
DN PREV200000513968
TI The lymphoid/neuronal OX2 glycoprotein interacts with a novel protein expressed by macrophages.
AU Wright, G. J. [Reprint author]; Brown, M. H. [Reprint author]; ***Barclay, A. N.*** [Reprint author]
CS Sir William Dunn School of Pathology, University of Oxford, Oxford, UK
SO Tissue Antigens, (2000) Vol. 55, No. Supplement 1, pp. 11. print. Meeting Info.: 7th Workshop and Conference on Human Leucocyte Differentiation Antigens. Harrogate, England, UK. June 20-24, 2000. CODEN: TSANA2. ISSN: 0001-2815.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 29 Nov 2000
Last Updated on STN: 11 Jan 2002

=> s CD200 (3a) receptor?
1 FILES SEARCHED...
L9 35 CD200 (3A) RECEPTOR?

=> s l9 and (antibod? or mAb)
L10 10 L9 AND (ANTIBOD? OR MAB)

=> dup rem l10
PROCESSING COMPLETED FOR L10
L11 6 DUP REM L10 (4 DUPLICATES REMOVED)

=> d bib abs 1-
YOU HAVE REQUESTED DATA FROM 6 ANSWERS - CONTINUE? Y/(N):y

L11 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:757548 CAPLUS
DN 139:275741
TI ***Antibodies*** , agonists and antagonists to ***CD200*** ***receptors*** for diagnosis and treatment of immune disease, inflammation, infection and cancer
IN Cherwinski, Holly M.; Phillips, Joseph H.; Sedgwick, Jonathon D.; Bigler, Michael E.; Murphy, Craig A.
PA Schering Corporation, USA
SO PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003077947	A1	20030925	WO 2003-US7647	20030313
US 2003223991	A1	20031204	US 2003-389231	20030313
PRAI US 2002-364513P	P	20020315		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LU, LV, MA, MD, MG, MK, MN, MX, MZ, NI, NO, NZ, PH, PL, PT, RO, RU, SC, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UZ, VC, VN, YU, ZA, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AB Abstr. Provided are methods for modulating activity of the immune system using agonists or antagonists of a ***CD200*** ***receptor*** . The agonists or antagonists are humanized ***antibodies*** , monoclonal ***antibodies*** , polyclonal ***antibodies*** , ***antibody*** fragments, peptide mimetic of ***antibody*** . The ***antibodies*** , agonists and antagonists are provided for treatment and diagnosis of immune and autoimmune disorder, inflammation, rheumatoid arthritis, endotoxemia, psoriasis, allergy, infection or cancer.
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 6 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN DUPLICATE 1
AN 2003214539 EMBASE
TI Modulation of ***CD200*** ***receptors*** as a novel method of immunosuppression.
SO Expert Opinion on Therapeutic Patents, (1 May 2003) 13/5 (711-715). Refs: 34
ISSN: 1354-3776 CODEN: EOTPEG
CY United Kingdom
DT Journal; Article
FS 022 Human Genetics
026 Immunology, Serology and Transplantation
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
LA English
SL English
AB Current methods of therapeutic immunomodulation are unsatisfactory. More effective and safer strategies are needed either to suppress immune responses for the treatment of transplant rejections, autoimmunity and allergy or to boost immunity against infectious diseases and cancer. This patent application proposes a novel approach towards these goals based on targeting ***CD200*** ***receptors*** (CD200R). Whereas ***CD200*** is expressed on lymphoid cells, neurons and endothelium, CD200R are mainly expressed on macrophages and myeloid cells. Crosslinking CD200R with CD200:Fc, an immunoadhesin made up of the CD200 extracellular region fused to the murine IgG2a Fc region or with anti-CD200R monoclonal ***antibodies*** (mAbs) can prolong allograft and xenograft survival and ameliorate collagen-induced arthritis in mice. Murine CD200R isoforms were identified by genomic analyses and partially characterised using specific mAbs acting presumably as receptor agonists. Myeloid dendritic cells (DCs) generated in the presence of anti-CD200R isoform mAbs were unable to stimulate the production of IFN-gamma. and cytolytic lymphocytes in a mixed lymphocyte culture but induced the emergence of suppressor cells. When injected prior to transplantation, such DCs were capable of significantly prolonging skin allograft survival. Although the data suggest that CD200R might serve to dampen immune responses, further investigations are required to determine whether this approach would be applicable to human disease situations.

L11 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:906505 CAPLUS
DN 138:12292
TI Cloning and characterization of mouse ***CD200*** ***receptor*** variants, and therapeutic use thereof in modulating immune response in animal transplantation and immune diseases
IN Gorczynski, Reginald M.; Marsden, Philip
PA Transplantation Technologies Inc., Can.; Trillium Therapeutics Inc.
SO PCT Int. Appl., 189 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002095030	A2	20021128	WO 2002-CA734	20020524

WO 2002095030 A3 20030821
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRAI US 2001-292950P P 20010524
US 2002-369862P P 20020405
AB The present invention relates to ***CD200*** ***receptor*** isoforms and modulators thereof and their use in methods of immune modulation and pharmaceutical compns. In particular, protein and cDNA sequences for three isoforms of the murine ***CD200*** ***receptor*** called CD200R2a, CD200R2b and CD200R3a are provided. The inventors have also prepd. ***antibodies*** to the different isoforms of CD200R. Studies of using CD200R ***antibodies*** , co-administering the ***CD200*** ***receptor*** with a ***CD200*** peptide, preferably in the form of a sol. fusion protein, such as CD200:Fc, to modulate immune response are presented. The inventors have also shown that administering ***antibody*** fragments [e.g. Fab or F(ab')2 fragments] that bind to a ***CD200*** ***receptor*** inhibits the immune suppression caused by CD200. Accordingly, in another aspect, the present invention provides a method of inhibiting immune suppression by administering an effective amt. of a ***CD200*** ***receptor*** antagonist to a cell or animal in need thereof. Preferably, the antagonist is an agent that inhibits the interaction of the ***CD200*** ***receptor*** with ***CD200*** .

L11 ANSWER 4 OF 6 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN DUPLICATE 2
AN 2002373008 EMBASE
TI Anti-CD200R ameliorates collagen-induced arthritis in mice.
AU Gorczynski R.M.; Chen Z.; Lee L.; Yu K.; Hu J.
CS R.M. Gorczynski, CCRW 2-855, Transplant Research Division, Toronto Hospital, 200 Elizabeth Street, Toronto, Ont. M5G 2C4, Canada
SO Clinical Immunology, (2002) 104/3 (256-264).
Refs: 22
ISSN: 1521-6616 CODEN: CLIIFY
CY United States
DT Journal; Article
FS 026 Immunology, Serology and Transplantation
031 Arthritis and Rheumatism
LA English
SL English
AB Immunization of DBA/1 with 100 .mu.g bovine collagen type II emulsified in Freund's adjuvant, followed by booster injection in incomplete adjuvant at 18 days, leads to development of arthritis in more than 70% of mice by 28 days postinjection. We have previously shown that the novel immunosuppressant molecule CD200Fc (linking an extracellular domain of CD200 with a murine IgG2a Fc region) can suppress induction of disease when given to mice from the time of collagen injection. This occurs in concert with a decrease in the serum levels of anti-collagen IgG (.apprx.50% reduction), with relatively more IgG2b and IgG3, decreased serum levels of TNF.alpha. and IFN-.gamma., and decreased production of those same cytokines after re-stimulation of lymphocytes in vitro with collagen. Since CD200 induces suppression following engagement of a receptor (CD200R), known to be expressed on, among other cells, macrophages, we investigated whether infusion of anti-CD200R and/or CD200Fc would ameliorate established disease in DBA mice, when injections were begun following collagen immunization. Our data indicate an arrest of disease following either treatment, with modification of a number of immune parameters (serum and lymphocyte cytokine production) consistent with a general role for CD200: CD200R interactions in the regulation of induction and/or expression of autoimmune disorders. When a higher dose (250 .mu.g/mouse) of anti-CD200R was infused into a group of overtly arthritic mice, a significant (.apprx.50%) decrease in arthritic joint score occurred over the 4-week treatment period. .COPYRGT. 2002 Elsevier Science (USA).

L11 ANSWER 5 OF 6 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN
AN 2002239920 EMBASE
TI The same immunoregulatory molecules contribute to successful pregnancy and transplantation.
AU Gorczynski R.M.; Hadidi S.; Yu G.; Clark D.A.
CS Dr. R.M. Gorczynski, CCRW 2-855, Toronto Hospital, 101 College Street W., Toronto, Ont. M5G 2C4, Canada. rgorczynski@uhnres.utoronto.ca
SO American Journal of Reproductive Immunology, (2002) 48/1 (18-26).
Refs: 54
ISSN: 8755-8920 CODEN: AAJID6
CY United Kingdom
DT Journal; Article
FS 010 Obstetrics and Gynecology
026 Immunology, Serology and Transplantation
029 Clinical Biochemistry
LA English
SL English
AB Problem: At least two dendritic cell-associated molecules have been shown to contribute to the successful outcome of organ and tissue allografts in mice, namely CD200 and MD-1. CD200 is up-regulated in rodent transplantation models where successful inhibition of rejection is accomplished, and is believed to signal immunosuppression following engagement of a receptor, CD200R, on macrophages and/or .gamma..delta. T-cell receptor (.gamma..delta. TCR(+)) cells MD-1 is implicated in controlling expression of costimulatory molecules including CD80/CD86 which induce an immunorejection response, and thus inhibition of MD-1 expression also facilitates increased graft survival MD-1 also stabilizes expression of CD14, part of the receptor complex for LPS. As well as the inhibition of rejection which follows blockade of MD-1 expression and/or augmentation of CD200 expression, an altered polarization in cytokine production is seen, with increased expression of interleukin-4 (IL-4), IL-10 and transforming growth factor-.beta. (TGF-.beta.), and decreased IL-2, interferon-.gamma. (IFN-.gamma.) and tumor necrosis factor-.alpha. (TNF-.alpha.). Successful pregnancy in allopregnant mice also depends upon control of graft rejection mechanisms. Proinflammatory T-helper 1 (Th1) cytokines (TNF-.alpha. + IFN-.gamma. + IL-1) have been shown to cause spontaneous abortion in mice by activating a novel prothrombinase, fibrinogen-like peptide (fibroleukin) fg12, which may promote fibrin deposition in the graft rejection process; expression of IL-10, TGF-.beta., and progesterone-induced blocking factor (PIBF) in contrast leads to lowering of abortion rates. Interestingly, the spontaneous abortion rates in abortion-prone CBA x DBA/2 matings and in the low abortion rate CBA x BALB/c matings were lower than the frequency of implantation sites showing fibrin(hi) + fg12 (mRNA)(hi), implying regulation of the pro-abortion consequences of fg12 expression. Methods: We have investigated, by in situ hybridization, CD200, MD-1 and fg12 expression in implantation sites in different strains of mice, and studied the effects of anti-MD-1, anti-CD200 and CD200Fc immunoadhesin on fetal and allograft survival. The role of indoleamine dioxygenase (IDO) was evaluated. Results: CD200 mRNA expression occurred in the same sites as fg12 mRNA. Anti-CD200 ***antibody*** raised the abortion rate to predicted levels, and infusion of a CD200 immunoadhesin reduced the abortion rate, as did an anti-MD-1 ***antibody*** . The latter also improved organ and tissue graft survival. Suppression by antigen-presenting macrophages triggered by CD200 is dependent upon intact IDO activity. Conclusion: Regulation of CD200 and MD-1 expression may control both pregnancy and allograft survival. .COPYRGT. Blackwell Munksgaard, 2002.

L11 ANSWER 6 OF 6 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 3
AN 2001:429194 BIOSIS
DN PREV200100429194
TI Transplant tolerance modifying ***antibody*** to ***CD200*** ***receptor*** , but not ***CD200*** , alters cytokine production profile from stimulated macrophages.
AU Gorczynski, Reginald M. [Reprint author]
CS Toronto Hospital, 200 Elizabeth Street, CCRW 2-855, Toronto, ON, M5G2C4, Canada
SO European Journal of Immunology, (August, 2001) Vol. 31, No. 8, pp. 2331-2337. print.
CODEN: EJIMAF. ISSN: 0014-2980.
DT Article
LA English
ED Entered STN: 12 Sep 2001
Last Updated on STN: 22 Feb 2002
AB Increased C57BL/6 allograft survival following donor-specific dendritic cell (DC) portal vein (pv) pre-transplant immunization of C3H mice is associated with increased expression of the molecule CD200 on DC, delivery of suppressive signals by CD200r+ macrophages, and polarization in cytokine production towards type-2 cytokines. Infusion of anti-mouse CD200 monoclonal ***antibody*** abolishes these effects. We have used whole Ig, and F(ab')2 fragments, of anti-CD200 and anti-CD200r ***mAb*** to explore the relative signaling role of CD200+ versus CD200r+ cells in suppression of type-1 cytokine production in mixed leukocyte cultures (MLC), and enhanced graft survival in vivo. Simple neutralization of CD200 (even by F(ab')2 ***antibody***) reversed CD200-mediated suppression. However, only whole anti-CD200r ***antibody*** was effective in stimulating suppression from CD200r+ cells. Suppression of cytokine induction following cross-linking of CD200r+ cells in vitro was attenuated by anti-IL-6 ***mAb*** . Our data are consistent with the hypothesis that CD200r itself delivers the crucial intracellular signal leading to immunosuppression, a feature likely of importance in autoimmunity and transplantation.

=> d his

(FILE 'HOME' ENTERED AT 16:51:55 ON 25 MAY 2004)

FILE 'BIOSIS, EMBASE, CAPLUS' ENTERED AT 16:52:04 ON 25 MAY 2004
L1 0 S OX102
L2 0 S OX 102
L3 196 S OX2R OR OX2 RECEPTOR?
L4 10 S L3 AND ANTIBOD?
L5 7 DUP REM L4 (3 DUPLICATES REMOVED)
L6 4401 S BARCLAY?/AU
L7 12 S L3 AND L6

L8 8 DUP REM L7 (4 DUPLICATES REMOVED)
L9 35 S CD200 (3A) RECEPTOR?
L10 10 S L9 AND (ANTIBOD? OR MAB)
L11 6 DUP REM L10 (4 DUPLICATES REMOVED)

=> s l3 or l9
L12 230 L3 OR L9

=> s l12 and mAb
L13 10 L12 AND MAB

=> dup rem l13
PROCESSING COMPLETED FOR L13
L14 4 DUP REM L13 (6 DUPLICATES REMOVED)

=> d bib abs 1-
YOU HAVE REQUESTED DATA FROM 4 ANSWERS - CONTINUE? Y/(N):y

L14 ANSWER 1 OF 4 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 1
AN 2001:429194 BIOSIS
DN PREV200100429194
TI Transplant tolerance modifying antibody to ***CD200*** ***receptor*** , but not ***CD200*** , alters cytokine production profile from stimulated macrophages.
AU Gorczynski, Reginald M. [Reprint author]
CS Toronto Hospital, 200 Elizabeth Street, CCRW 2-855, Toronto, ON, M5G2C4, Canada
SO European Journal of Immunology, (August, 2001) Vol. 31, No. 8, pp. 2331-2337. print.
CODEN: EJIMAF. ISSN: 0014-2980.
DT Article
LA English
ED Entered STN: 12 Sep 2001
Last Updated on STN: 22 Feb 2002
AB Increased C57BL/6 allograft survival following donor-specific dendritic cell (DC) portal vein (pv) pre-transplant immunization of C3H mice is associated with increased expression of the molecule CD200 on DC, delivery of suppressive signals by CD200r+ macrophages, and polarization in cytokine production towards type-2 cytokines. Infusion of anti-mouse CD200 monoclonal antibody abolishes these effects. We have used whole Ig, and F(ab')2 fragments, of anti-CD200 and anti-CD200r ***mAb*** to explore the relative signaling role of CD200+ versus CD200r+ cells in suppression of type-1 cytokine production in mixed leukocyte cultures (MLC), and enhanced graft survival in vivo. Simple neutralization of CD200 (even by F(ab')2 antibody) reversed CD200-mediated suppression. However, only whole anti-CD200r antibody was effective in stimulating suppression from CD200r+ cells. Suppression of cytokine induction following cross-linking of CD200r+ cells in vitro was attenuated by anti-IL-6 ***mAb*** . Our data are consistent with the hypothesis that CD200r itself delivers the crucial intracellular signal leading to immunosuppression, a feature likely of importance in autoimmunity and transplantation.

L14 ANSWER 2 OF 4 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2001:278650 BIOSIS
DN PREV200100278650
TI Role of MD-1 in regulation of alloimmunity and rejection.
AU Hadidi, Sima [Reprint author]; Gorczynski, Reginald [Reprint author]
CS University Health Network, 200 Elizabeth Str, CCRW2-855, Toronto, Ontario, M5G2C4, Canada
SO FASEB Journal, (March 7, 2001) Vol. 15, No. 4, pp. A342. print.
Meeting Info.: Annual Meeting of the Federation of American Societies for Experimental Biology on Experimental Biology 2001. Orlando, Florida, USA. March 31-April 04, 2001.
CODEN: FAJOEC. ISSN: 0892-6638.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 13 Jun 2001
Last Updated on STN: 19 Feb 2002
AB We have shown that after portal vein (pv) pre-transplant immunization, animals accept renal and skin allografts and xenografts longer than controls. Increased survival is associated with expression on dendritic cells. (DCs) of a molecule, OX2, which we showed delivers a suppressive signal following interaction with its receptor, ***OX2r*** , on target cells. We also observed elevated expression of a molecule MD-1, which we hypothesized acted in opposition to OX2, controlling surface expression of CD80/CD86 which are implicated in rejection itself. We reported that incubation of DCs with anti-sense oligonucleotides (ODNs) to MD-1 decreased expression of CD80/CD86 on those cells, and diminished their capacity to stimulate in vitro MLR and CTL reactions. We asked whether these ODNs were active in vivo in regulating graft rejection. C3H mice received multiple iv injections with anti-MD-1 (or control) ODNs following application of C57BL/6 skin allografts. Graft survival was followed 3 mice/group were sacrificed at 12 days, spleen cells harvested and cells tested in vitro for allospecific and third-party immune responses (CTL induction: MLR proliferation; induction of IFN/IL-4 synthesis). Compared with control mice, anti-MD-1 treated animals showed >85% inhibition of alloimmunity in all assays, along with marked increases in IL-4 production and elevated graft survival. This was correlated with diminished MD-1 mRNA in tissue extracts from treated mice, with preservation of OX2 expression. Finally we used rat ***mAb*** to murine MD-1 to assess an alternative means of inhibiting functional expression of MD-1 in vivo. Infusion of anti-MD-1 ***mAb*** into pv immunized mice further prolonged survival of allografts, and led to decreased allospecific immune responses from cells harvested from treated mice. Taken together, our data suggest that manipulations designed to decrease expression of MD-1, and increase that of OX2, synergize in decreasing rejection.

L14 ANSWER 3 OF 4 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 2
AN 2001:187889 BIOSIS
DN PREV200100187889
TI The unusual distribution of the neuronal/lymphoid cell surface CD200 (OX2) glycoprotein is conserved in humans.
AU Wright, G. J.; Jones, M.; Puklavec, M. J.; Brown, M. H.; Barclay, A. N. [Reprint author]
CS Sir William Dunn School of Pathology, South Parks Road, Oxford, OX1 3RE, UK
SO Immunology, (February, 2001) Vol. 102, No. 2, pp. 173-179. print.
CODEN: IMMUAM. ISSN: 0019-2805.
DT Article
LA English
ED Entered STN: 20 Apr 2001
Last Updated on STN: 18 Feb 2002
AB OX2 (CD200) is a type-1 membrane glycoprotein that contains two immunoglobulin superfamily domains and which is expressed on a variety of lymphoid and non-lymphoid cells in the rat. The recent characterization of a receptor for OX2 (***OX2R***) on myeloid cells, and the phenotype of an OX2-deficient mouse, suggests that OX2 may regulate myeloid cell activity in anatomically diverse locations. Here we report the tissue distribution of the human homologue of the rat OX2 glycoprotein using a new monoclonal antibody (***mAb***), OX104, raised against recombinant human OX2. Human OX2 was expressed at the cell surface of thymocytes, B cells, T cells, neurons, kidney glomeruli, tonsil follicles, the syncytiotrophoblast and endothelial cells. This broad, but not ubiquitous, distribution pattern is very similar to that observed in rats, suggesting that OX2 may regulate myeloid cell activity in a variety of tissues in humans.

L14 ANSWER 4 OF 4 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 3
AN 2000:440556 BIOSIS
DN PREV200000440556
TI Lymphoid/neuronal cell surface OX2 glycoprotein recognizes a novel receptor on macrophages implicated in the control of their function.
AU Wright, Gavin J.; Puklavec, Michael J.; Willis, Antony C.; Hoek, Robert M.; Sedgwick, Jonathon D.; Brown, Marion H.; Barclay, A. Neil [Reprint author]
CS Sir William Dunn School of Pathology, University of Oxford, South Parks Road, Oxford, OX1 3RE, UK
SO Immunity, (August, 2000) Vol. 13, No. 2, pp. 233-242. print.
ISSN: 1074-7613.
DT Article
LA English
OS Genbank-AF231392; Genbank-AF231393
ED Entered STN: 18 Oct 2000
Last Updated on STN: 10 Jan 2002
AB The OX2 membrane glycoprotein (CD200) is expressed on a broad range of tissues including lymphoid cells, neurons, and endothelium. We report the characterization of an ***OX2*** ***receptor*** (***OX2R***) that is a novel protein restricted to cells of the myeloid lineage. OX2 and its receptor are both cell surface glycoproteins containing two immunoglobulin-like domains and interact with a dissociation constant of 2.5 muM and koff 0.8 s-1, typical of many leukocyte protein membrane interactions. Pervanandate treatment of macrophages showed that ***OX2R*** could be phosphorylated on tyrosine residues. Blockade of the OX2- ***OX2R*** interaction with an ***OX2R*** ***mAb*** exacerbated the disease model experimental allergic encephalomyelitis. These data, together with data from an OX2-deficient mouse (R. M. Hoek et al., submitted), suggest that myeloid function can be controlled in a tissue-specific manner by the OX2- ***OX2R*** interaction.

=> s l12 and py<=1999
2 FILES SEARCHED...
L15 21 L12 AND PY<=1999

=> dup rem l15
PROCESSING COMPLETED FOR L15
L16 11 DUP REM L15 (10 DUPLICATES REMOVED)

=> d bib abs 1-
YOU HAVE REQUESTED DATA FROM 11 ANSWERS - CONTINUE? Y/(N):y

L16 ANSWER 1 OF 11 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 1
AN 2000:37723 BIOSIS
DN PREV200000037723
TI Structure, tissue distribution, and pharmacological characterization of

Xenopus orexins.
AU Shibahara, Megumi; Sakurai, Takeshi [Reprint author]; Nambu, Tadahiro; Takenouchi, Takato; Iwaasa, Hisashi; Egashira, Shin-Ichiro; Ihara, Masaki; Goto, Katsutoshi
CS Institute of Basic Medical Sciences, University of Tsukuba, Tsukuba, Ibaraki, 305-8575, Japan
SO Peptides (New York), (Oct., 1999) Vol. 20, No. 10, pp. 1169-1176. print.
CODEN: PPTDD5. ISSN: 0196-9781.
DT Article
LA English
ED Entered STN: 19 Jan 2000
Last Updated on STN: 31 Dec 2001
AB We isolated the Xenopus gene encoding prepro-orexin to predict the structures of orexins in submammalian chordates. Putative mature Xenopus orexin-A and -B are highly similar to each mammalian counterpart. Especially, the C-terminal 10 residues were highly conserved among these species and isopeptides. Immunohistochemical examination of Xenopus brain revealed that orexin-containing neurons were highly specifically localized in the ventral hypothalamic nucleus. A rich network of immunoreactive fibers was found in various regions of the Xenopus brain. The distribution was similar to that of mammalian orexins. Xenopus orexin-A and -B specifically bind and activate human orexin receptors expressed in Chinese hamster ovary cells. Of interest, Xenopus orexin-B had several-fold higher affinity to human ***OX2R*** compared with human orexins. These results suggest that Xenopus orexin-B might be a useful pharmacological tool as an ***OX2R*** selective high-affinity agonist.

L16 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:571534 CAPLUS
DN 131:284870
TI Narcolepsy in orexin knockout mice: molecular genetics of sleep regulation
AU Chemelli, Richard M.; Willie, Jon T.; Sinton, Christopher M.; Elmquist, Joel K.; Scammell, Thomas; Lee, Charlotte; Richardson, James A.; Williams, S. Clay; Xiong, Yumei; Kisanuki, Yaz; Fitch, Thomas E.; Nakazato, Masamitsu; Hammer, Robert E.; Saper, Clifford B.; Yanagisawa, Masashi
CS Howard Hughes Medical Institute Department of Molecular Genetics Department of Pediatrics, University of Texas Southwestern Medical Center at Dallas, Dallas, TX, 75235-9050, USA
SO Cell (Cambridge, Massachusetts) (***1999***), 98(4), 437-451
CODEN: CELLB5; ISSN: 0092-8674
PB Cell Press
DT Journal
LA English
AB Neurons contg. the neuropeptide orexin (hypocretin) are located exclusively in the lateral hypothalamus and send axons to numerous regions throughout the central nervous system, including the major nuclei implicated in sleep regulation. Here, we report that, by behavioral and electroencephalog. criteria, orexin knockout mice exhibit a phenotype strikingly similar to human narcolepsy patients, as well as canarc-1 mutant dogs, the only known monogenic model of narcolepsy. Moreover, modafinil, an anti-narcoleptic drug with ill-defined mechanisms of action, activates orexin-contg. neurons. We propose that orexin regulates sleep/wakefulness states, and that orexin knockout mice are a model of human narcolepsy, a disorder characterized primarily by rapid eye movement (REM) sleep dysregulation.
RE.CNT 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 3 OF 11 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 2
AN 2000:154898 BIOSIS
DN PREV200000154898
TI Acute effects of orexins A and B on the rat pituitary-adrenocortical axis.
AU Malendowicz, Ludwik K.; Tortorella, Cinzia; Nussdorfer, Gastone G. [Reprint author]
CS Department of Human Anatomy and Physiology, Section of Anatomy, University of Padua, Padua, Italy
SO Biomedical Research (Tokyo), (Oct., 1999) Vol. 20, No. 5, pp. 301-304. print.
CODEN: BRESD5. ISSN: 0388-6107.
DT Article
LA English
ED Entered STN: 26 Apr 2000
Last Updated on STN: 4 Jan 2002
AB Orexins A and B are hypothalamic peptides, which act through two receptor subtypes, called OX1R and ***OX2R*** . They belong to a group of neuropeptides involved in the central regulation of food intake, members of which (neuropeptide Y and leptin) are known to modulate the function of the pituitary-adrenocortical axis (PAA). We examined the effects at 60 and 120 min of a subcutaneous injection of 5 or 10 nmol/kg of orexins on the function of the rat PAA. Orexin-A raised plasma concentrations of ACTH, aldosterone and corticosterone at both 60 and 120 min, corticosterone response being the most intense one. Orexin-B evoked a sizeable decrease in the plasma level of ACTH, without changing that of corticosterone. The effect of orexin-B on aldosterone plasma concentration was biphasic, the lower dose decreasing and the higher one increasing it at both 60 and 120 min. Evidence indicates that OX1R binds both orexins, while ***OX2R*** is selective for orexin-B, and that only ***OX2R*** is present in the hypothalamic nucleus paraventricularis. On these grounds, our findings allow us to conclude: (i) OX1R stimulates and ***OX2R*** inhibits rat PAA; (ii) orexin-A stimulates PAA, the activation of OX1R prevailing over that of ***OX2R*** , while orexin-B suppresses PAA function; and (iii) the aldosterone-secreting response to the higher dose of orexin-B may probably be ascribed to the activation of one or more extra-PAA mechanisms enhancing secretory activity of the zona glomerulosa.

L16 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:17219 CAPLUS
DN 130:163414
TI Distribution of orexin receptor mRNA in the rat brain. [Erratum to document cited in CA130:76402]
AU Trivedi, Prashant; Yu, Hong; MacNeil, Douglas J.; Van der Ploeg, L. H. T.; Guan, Xiao-Ming
CS Department of Obesity Research, Merck Research Laboratories, Rahway, NJ, 07065, USA
SO FEBS Letters (***1999***), 442(1), 122
CODEN: FEBLAL; ISSN: 0014-5793
PB Elsevier Science B.V.
DT Journal
LA English
AB The second author was inadvertently not given the credit for having contributed equally to the study with the first author.

L16 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:264439 CAPLUS
DN 133:26938
TI Structure-activity relationship studies on the novel neuropeptide orexin
AU Asahi, Shuichi; Egashira, Shin-Ichiro; Matsuda, Masao; Iwaasa, Hisashi; Kanatani, Akio; Ohkubo, Mitsuru; Ihara, Masaki; Sakurai, Takeshi; Morishima, Hajime
CS Banyu Tsukuba Research Institute in collaboration with Merck Research Laboratories, Tsukuba, 300-2611, Japan
SO Peptide Science (***1999***), 36th, 37-40
CODEN: PSCIFQ; ISSN: 1344-7661
PB Japanese Peptide Society
DT Journal
LA English
AB Orexins (also known as hypocretins) were recently identified as hypothalamic neuropeptides with various physiol. functions, including the regulation of feeding behavior. To characterize the structural requirements of orexin receptor selectivity, the authors conducted systematic structure-activity relationship studies on orexins. Peptide chain truncation, alanine scanning and D-amino acid scanning revealed that the entire sequence of orexin is not required for receptor activation, however the C-terminal region is crit. for agonistic activity.
RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 6 OF 11 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 3
AN 1999:477953 BIOSIS
DN PREV199900477953
TI Characterization of recombinant human orexin receptor pharmacology in a Chinese hamster ovary cell-line using FLIPR.
AU Smart, D. [Reprint author]; Jerman, J. C.; Brough, S. J.; Rushton, S. L.; Murdock, P. R.; Jewitt, F.; Elshourbagy, N. A.; Ellis, C. E.; Middlemiss, D. N.; Brown, F.
CS Neuroscience Research, New Frontiers Science Park, SmithKline Beecham Pharmaceuticals, Third Avenue, Harlow, Essex, CM19 5AW, UK
SO British Journal of Pharmacology, (Sept., 1999) Vol. 128, No. 1, pp. 1-3. print.
CODEN: BJPCBM. ISSN: 0007-1188.
DT Article
LA English
ED Entered STN: 9 Nov 1999
Last Updated on STN: 3 May 2000
AB The cellular mechanisms underlying the physiological effects of the orexins are poorly understood. Therefore, the pharmacology of the recombinant human orexin receptors was studied using FLIPR. Intracellular calcium ((Ca2+)i) was monitored in Chinese hamster ovary (CHO) cells stably expressing orexin-1 (OX1) or orexin-2 (***OX2***) ***receptors*** using Fluo-3AM. Orexin-A and orexin-B increased (Ca2+)i in a concentration dependent manner in CHO-OX1 (pEC50 = 8.03 +- 0.08 and 7.30 +- 0.08 respectively, n = 5) and CHO-OX2 (pEC50 = 8.18 +- 0.10 and 8.43 +- 0.09 respectively, n = 5) cells. This response was typified as a rapid peak in (Ca2+)i (maximal at 6-8 s), followed by a gradually declining secondary phase. Thapsigargin (3 muM) or U73122 (3 muM) abolished the response. In calcium-free conditions the peak response was unaffected but the secondary phase was shortened, returning to basal values within 90 s. Calcium (1.5 mM) replacement restored the secondary phase. In conclusion, orexins cause a phospholipase C-mediated release of calcium from intracellular stores, with subsequent calcium influx.

L16 ANSWER 7 OF 11 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1999:85722 BIOSIS
DN PREV199900085722
TI Distribution of orexin receptor mRNA in the rat brain.
AU Trivedi, P.; Yu, H.; Macneil, D. J.; Van Der Ploeg, L. H. T.; Guan, X.-M.
CS Dep. Obesity Res. Merck Res. Lab., Rahway, NJ 07065, USA

SO Society for Neuroscience Abstracts, (1998) Vol. 24, No. 1-2, pp. 2046. print.
Meeting Info.: 28th Annual Meeting of the Society for Neuroscience, Part 2. Los Angeles, California, USA. November 7-12, 1998. Society for Neuroscience.
ISSN: 0190-5295.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Poster)
LA English
ED Entered STN: 1 Mar 1999
Last Updated on STN: 1 Mar 1999

L16 ANSWER 8 OF 11 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 4
AN 1999:5250 BIOSIS
DN PREV199900005250
TI Distribution of orexin receptor mRNA in the rat brain.
AU Trivedi, Prashant; Yu, Hong; Macneil, Douglas J.; Van Der Ploeg, L. H. T.; Guan, Xiao-Ming [Reprint author]
CS Dep. Obesity Res., Merck Res. Lab., P.O. Box 2000, R80M-213 Rahway, NJ 07065, USA
SO FEBS Letters, (Oct. 30, 1998) Vol. 438, No. 1-2, pp. 71-75. print.
CODEN: FEBLAL. ISSN: 0014-5793.
DT Article
LA English
ED Entered STN: 11 Jan 1999
Last Updated on STN: 11 Jan 1999
AB The expression pattern of mRNA encoding two orexin receptors (OX1R and ***OX2R***) in the rat brain was examined. OX1R and ***OX2R*** exhibited marked differential distribution. Within the hypothalamus, OX1R mRNA is most abundant in the ventromedial hypothalamic nucleus whereas ***OX2R*** is predominantly expressed in the paraventricular nucleus. High levels of OX1R mRNA were also detected in tenia tecta, the hippocampal formation, dorsal raphe, and locus coeruleus. ***OX2R*** mRNA is mainly expressed in cerebral cortex, nucleus accumbens, subthalamic and paraventricular thalamic nuclei, anterior pretectal nucleus. The presence of orexin receptor mRNA in the hypothalamus is in support of its proposed role in feeding regulation. Broad central distribution of orexin receptors may indicate additional functions for orexins.

L16 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1989:492495 CAPLUS
DN 111:92495
TI Receptor specificity of the Escherichia coli T-even type phage Ox2. Mutational alterations in host range mutants
AU Drexler, Klaus; Riede, Isolde; Montag, Dirk; Eschbach, Marie Luise; Henning, Ulf
CS Max-Planck-Inst. Biol., Tuebingen, D-7400, Fed. Rep. Ger.
SO Journal of Molecular Biology (***1989***), 207(4), 797-803
CODEN: JMOBAK; ISSN: 0022-2836
DT Journal
LA English
AB The T-even type E. coli phage Ox2 uses the outer membrane protein OmpA as
a receptor. The protein is recognized with the ends of the virion's long tail fibers. The 266 residue protein 38 is located at this site and acts as an adhesin. Host-range mutants had previously been isolated from Ox2. Mutant Ox2h5 is able to infect cells possessing an altered OmpA protein, which renders the cell resistant to Ox2. Ox2h10 was selected from Ox2h5. This phage recognizes the OmpC protein in addn. to the OmpA protein. Ox2h12, which stems from Ox2H10, binds to OmpC with high affinity, but has lost efficient binding to OmpA. The mutational alterations caused in protein 38 are: Asp231 .fwdarw. Asn(h5) and His170 .fwdarw. Arg(h10). The triplet mutant Ox2h12 possesses an insertion of a Gly residue next to Gly121. The three mutants have addnl. acquired mutations affecting their base plate, making them "trigger-happy". When protein 38 was compared with the same protein derived from other E. coli phages, it was found to contain two const. and one variable domain, the latter harboring four hypervariable regions flanked by a largely conserved glycine-rich sequence. The h5 and h10 mutations occurred within two hypervariable areas, while the addnl. Gly residue was present in one of the flanking conserved sequences. On the basis of these results, as well as those obtained from host-range mutants analyzed previously, a model for such adhesins is proposed. Receptor recognition is most likely performed via the hypervariable regions, which may form loops held together in close proximity by the oligoglycine sequences. The latter may achieve this by being part of highly compact omega loops.

L16 ANSWER 10 OF 11 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 5
AN 1985:238322 BIOSIS
DN PREV198579018318; BA79:18318
TI HOST RANGE MUTANTS OF BACTERIOPHAGE OX-2 CAN USE 2 DIFFERENT OUTER
MEMBRANE PROTEINS OF ESCHERICHIA-COLI K-12 AS RECEPTORS.
AU MORONA R [Reprint author]; HENNING U
CS MAX-PLANCK-INSTITUT FUER BIOLOGIE, D-7400 TUEBINGEN, FRG
SO Journal of Bacteriology, (1984) Vol. 159, No. 2, pp. 579-582.
CODEN: JOBAAY. ISSN: 0021-9193.
DT Article
FS BA
LA ENGLISH
AB The E. coli K-12 outer membrane protein OmpA functions as the receptor for bacteriophage Ox2. A host range mutant of this phage was isolated which was able to grow on an Ox2-resistant ompA mutant producing an altered OmpA protein. From this mutant, Ox2h5, a 2nd-step host range mutant was recovered which formed turbid plaques on a strain completely lacking the OmpA protein. From one of these mutants, Ox2h10, a 3rd-step host range mutant, Ox2h12, was isolated which formed clear plaques on a strain missing the OmpA protein. Ox2h10 and Ox2h12 apparently were able to use both outer membrane proteins OmpA and OmpC as receptors. Whereas the 2 proteins are very different with respect to primary structures and functions, the OmpC protein is very closely related to another outer membrane protein, OmpF, which was not recognized by Ox2h10 or Ox2h12. An examination of the OmpC amino acid sequence, in the regions where it differs from that of OmpF, revealed that 1 region shares considerable homology with a region of the OmpA protein which most likely is required for phage ***Ox2*** ***receptor*** activity.

L16 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1984:32130 CAPLUS
DN 100:32130
TI Role of lipopolysaccharide in the receptor function for bacteriophage Ox2
AU Sukupolvi, Soila
CS Natl. Public Health Inst., Helsinki, Finland
SO FEMS Microbiology Letters (***1984***), 21(1), 83-7
CODEN: FMLED7; ISSN: 0378-1097
DT Journal
LA English
AB The sensitivity of Salmonella typhimurium as well as of Escherichia coli to bacteriophage Ox2 required, in addn. to the OmpA protein, a certain type of rough lipopolysaccharide (LPS). Heptoseless mutants were resistant and unable to adsorb the phage. Mutants with less defective LPS chemotype were sensitive and could, except the 2nd most defective chemotypes, adsorb Ox2. However, isolated LPS-free OmpA protein could bind the phage, and this binding could not be increased by adding LPS.

=> s l6 and (CD200 or CD 200)
L17 15 L6 AND (CD200 OR CD 200)

=> dup rem l17
PROCESSING COMPLETED FOR L17
L18 5 DUP REM L17 (10 DUPLICATES REMOVED)

=> d bib abs 1-
YOU HAVE REQUESTED DATA FROM 5 ANSWERS - CONTINUE? Y/(N):y

L18 ANSWER 1 OF 5 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 1
AN 2003:539929 BIOSIS
DN PREV200300542479
TI Characterization of the ***CD200*** receptor family in mice and humans and their interactions with ***CD200*** .
AU Wright, Gavin J.; Cherwinski, Holly; Foster-Cuevas, Mildred; Brooke, Gary; Puklavec, Michael J.; Bigler, Mike; Song, Yaoli; Jenmalm, Maria; Gorman, Dan; McClanahan, Terri; Liu, Man-ru; Brown, Marion H.; Sedgwick, Jonathon D.; Phillips, Joseph H.; ***Barclay, A. Neil*** [Reprint Author]
CS Sir William Dunn School of Pathology, University of Oxford, South Parks Road, Oxford, OX1 3RE, UK
joe.phillips@dnax.org; Neil.Barclay@path.ox.ac.uk
SO Journal of Immunology, (September 15 2003) Vol. 171, No. 6, pp. 3034-3046. print.
ISSN: 0022-1767 (ISSN print).
DT Article
LA English
ED Entered STN: 19 Nov 2003
Last Updated on STN: 19 Nov 2003
AB ***CD200*** (OX2) is a broadly distributed cell surface glycoprotein that interacts with a structurally related receptor (CD200R) expressed on rodent myeloid cells and is involved in regulation of macrophage function. We report the first characterization of human CD200R (hCD200R) and define its binding characteristics to hCD200. We also report the identification of a closely related gene to hCD200R, designated hCD200RLa, and four mouse CD200R-related genes (termed mCD200RLa-d). ***CD200*** , CD200R, and CD200R-related genes were closely linked in humans and mice, suggesting that these genes arose by gene duplication. The distributions of the receptor genes were determined by quantitative RT-PCR, and protein expression was confirmed by a set of novel mAbs. The distribution of mouse and human CD200R was similar, with strongest labeling of macrophages and neutrophils, but also other leukocytes, including monocytes, mast cells, and T lymphocytes. Two mCD200 receptor-like family members, designated mCD200RLa and mCD200RLb, were shown to pair with the activatory
adaptor protein, DAP12, suggesting that these receptors would transmit strong activating signals in contrast to the apparent inhibitory signal delivered by triggering the CD200R. Despite substantial sequence homology with mCD200R, mCD200RLa and mCD200RLb did not bind mCD200, and presently
have unknown ligands. The ***CD200*** receptor gene family resembles the signal regulatory proteins and killer Ig-related receptors in having

receptor family members with potential activatory and inhibitory functions that may play important roles in immune regulation and balance. Because manipulation of the ***CD200*** -CD200R interaction affects the outcome of rodent disease models, targeting of this pathway may have therapeutic utility.

L18 ANSWER 2 OF 5 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 2
AN 2002:352369 BIOSIS
DN PREV200200352369
TI ***CD200*** and membrane protein interactions in the control of myeloid cells.
AU ***Barclay, A. Neil*** [Reprint author]; Wright, Gavin J.; Brooke, Gary [Reprint author]; Brown, Marion H. [Reprint author]
CS Sir William Dunn School of Pathology, University of Oxford, Oxford, OX1 3RE, UK
barclay@molbiol.ox.ac.uk
SO Trends in Immunology, (June, 2002) Vol. 23, No. 6, pp. 285-290. print.
ISSN: 1471-4906.
DT Article
LA English
ED Entered STN: 26 Jun 2002
Last Updated on STN: 26 Jun 2002
AB OX2 (now designated ***CD200***) is a membrane protein expressed by a broad range of cell types. It is the ligand for a receptor restricted to myeloid cells, with the potential to deliver inhibitory signals. This is indicated by the ***CD200*** -deficient mouse model, in which myeloid cells are more activated when stimulated immunologically than cells from normal mice. The unusual tissue distribution of ***CD200*** indicates where myeloid cells can be restrictively controlled through cell-cell contact. Recent data on ***CD200*** will be reviewed in the context of other proteins that might have similar roles, in particular, the interaction between CD47 and SIRPalpha (CD172a).

L18 ANSWER 3 OF 5 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 3
AN 2001:187889 BIOSIS
DN PREV200100187889
TI The unusual distribution of the neuronal/lymphoid cell surface ***CD200*** (OX2) glycoprotein is conserved in humans.
AU Wright, G. J.; Jones, M.; Puklavec, M. J.; Brown, M. H.; ***Barclay, A.*** *** N.*** [Reprint author]
CS Sir William Dunn School of Pathology, South Parks Road, Oxford, OX1 3RE, UK
SO Immunology, (February, 2001) Vol. 102, No. 2, pp. 173-179. print.
CODEN: IMMUAM. ISSN: 0019-2805.
DT Article
LA English
ED Entered STN: 20 Apr 2001
Last Updated on STN: 18 Feb 2002
AB OX2 (***CD200***) is a type-1 membrane glycoprotein that contains two immunoglobulin superfamily domains and which is expressed on a variety of lymphoid and non-lymphoid cells in the rat. The recent characterization of a receptor for OX2 (OX2R) on myeloid cells, and the phenotype of an OX2-deficient mouse, suggests that OX2 may regulate myeloid cell activity in anatomically diverse locations. Here we report the tissue distribution of the human homologue of the rat OX2 glycoprotein using a new monoclonal antibody (mAb), OX104, raised against recombinant human OX2. Human OX2 was expressed at the cell surface of thymocytes, B cells, T cells, neurons, kidney glomeruli, tonsil follicles, the syncytiotrophoblast and endothelial cells. This broad, but not ubiquitous, distribution pattern is very similar to that observed in rats, suggesting that OX2 may regulate myeloid cell activity in a variety of tissues in humans.

L18 ANSWER 4 OF 5 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 4
AN 2001:44456 BIOSIS
DN PREV200100044456
TI Down-regulation of the macrophage lineage through interaction with OX2 (***CD200***).
AU Hoek, Robert M.; Ruuls, Sigrid R.; Murphy, Craig A.; Wright, Gavin J.; Goddard, Ruth; Zurawski, Sandra M.; Blom, Bianca; Homola, Margit E.; Streit, Wolfgang J.; Brown, Marion H.; ***Barclay, A. Neil*** ; Sedgwick, Jonathan D. [Reprint author]
CS DNAX Research Institute of Molecular and Cellular Biology, 901 California Avenue, Palo Alto, CA, 94304, USA
jon.sedgwick@dnax.org
SO Science (Washington D C), (1 December, 2000) Vol. 290, No. 5497, pp. 1768-1771. print.
CODEN: SCIEAS. ISSN: 0036-8075.
DT Article
General Review; (Literature Review)
LA English
ED Entered STN: 17 Jan 2001
Last Updated on STN: 12 Feb 2002
AB OX2 (***CD200***) is a broadly expressed membrane glycoprotein, shown here to be important for regulation of the macrophage lineage. In mice lacking ***CD200*** , macrophage lineage cells, including brain microglia, exhibited an activated phenotype and were more numerous. Upon facial nerve transection, damaged ***CD200*** -deficient neurons elicited an accelerated microglial response. Lack of ***CD200*** resulted in a more rapid onset of experimental autoimmune encephalomyelitis (EAE). Outside the brain, disruption of ***CD200*** - ***CD200*** receptor interaction precipitated susceptibility to collagen-induced arthritis (CIA) in mice normally resistant to this disease. Thus, in diverse tissues OX2 delivers an inhibitory signal for the macrophage lineage.

L18 ANSWER 5 OF 5 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 5
AN 2000:440556 BIOSIS
DN PREV200000440556
TI Lymphoid/neuronal cell surface OX2 glycoprotein recognizes a novel receptor on macrophages implicated in the control of their function.
AU Wright, Gavin J.; Puklavec, Michael J.; Willis, Antony C.; Hoek, Robert M.; Sedgwick, Jonathon D.; Brown, Marion H.; ***Barclay, A. Neil*** [Reprint author]
CS Sir William Dunn School of Pathology, University of Oxford, South Parks Road, Oxford, OX1 3RE, UK
SO Immunity, (August, 2000) Vol. 13, No. 2, pp. 233-242. print.
ISSN: 1074-7613.
DT Article
LA English
OS Genbank-AF231392; Genbank-AF231393
ED Entered STN: 18 Oct 2000
Last Updated on STN: 10 Jan 2002
AB The OX2 membrane glycoprotein (***CD200***) is expressed on a broad range of tissues including lymphoid cells, neurons, and endothelium. We report the characterization of an OX2 receptor (OX2R) that is a novel protein restricted to cells of the myeloid lineage. OX2 and its receptor are both cell surface glycoproteins containing two immunoglobulin-like domains and interact with a dissociation constant of 2.5 muM and koff 0.8 s-1, typical of many leukocyte protein membrane interactions. Pervanandate treatment of macrophages showed that OX2R could be phosphorylated on tyrosine residues. Blockade of the OX2-OX2R interaction with an OX2R mAb exacerbated the disease model experimental allergic encephalomyelitis. These data, together with data from an OX2-deficient mouse (R. M. Hoek et al., submitted), suggest that myeloid function can be controlled in a tissue-specific manner by the OX2-OX2R interaction.

=> s CD200R
L19 38 CD200R

=> dup rem l19
PROCESSING COMPLETED FOR L19
L20 22 DUP REM L19 (16 DUPLICATES REMOVED)

=> d bib abs 1-
YOU HAVE REQUESTED DATA FROM 22 ANSWERS - CONTINUE? Y/(N):y

L20 ANSWER 1 OF 22 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:757548 CAPLUS
DN 139:275741
TI Antibodies, agonists and antagonists to CD200 receptors for diagnosis and treatment of immune disease, inflammation, infection and cancer
IN Cherwinski, Holly M.; Phillips, Joseph H.; Sedgwick, Jonathon D.; Bigler, Michael E.; Murphy, Craig A.
PA Schering Corporation, USA
SO PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003077947	A1	20030925	WO 2003-US7647	20030313

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LU, LV, MA, MD, MG, MK, MN, MX, MZ, NI, NO, NZ, PH, PL, PT, RO, RU, SC, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UZ, VC, VN, YU, ZA, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003223991	A1	20031204	US 2003-389231	20030313

PRAI US 2002-364513P P 20020315
AB Abstr. Provided are methods for modulating activity of the immune system using agonists or antagonists of a CD200 receptor. The agonists or antagonists are humanized antibodies, monoclonal antibodies, polyclonal antibodies, antibody fragments, peptide mimetic of antibody. The antibodies, agonists and antagonists are provided for treatment and diagnosis of immune and autoimmune disorder, inflammation, rheumatoid arthritis, endotoxemia, psoriasis, allergy, infection or cancer.
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 2 OF 22 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

DUPLICATE 1
AN 2003:539929 BIOSIS
DN PREV200300542479
TI Characterization of the CD200 receptor family in mice and humans and their interactions with CD200.
AU Wright, Gavin J.; Cherwinski, Holly; Foster-Cuevas, Mildred; Brooke, Gary; Puklavec, Michael J.; Bigler, Mike; Song, Yaoli; Jenmalm, Maria; Gorman, Dan; McClanahan, Terri; Liu, Man-ru; Brown, Marion H.; Sedgwick, Jonathon D.; Phillips, Joseph H.; Barclay, A. Neil [Reprint Author]
CS Sir William Dunn School of Pathology, University of Oxford, South Parks Road, Oxford, OX1 3RE, UK
joe.phillips@dnax.org; Neil.Barclay@path.ox.ac.uk
SO Journal of Immunology, (September 15 2003) Vol. 171, No. 6, pp. 3034-3046. print.
ISSN: 0022-1767 (ISSN print).
DT Article
LA English
ED Entered STN: 19 Nov 2003
Last Updated on STN: 19 Nov 2003
AB CD200 (OX2) is a broadly distributed cell surface glycoprotein that interacts with a structurally related receptor (***CD200R***) expressed on rodent myeloid cells and is involved in regulation of macrophage function. We report the first characterization of human CD200R (hCD200R) and define its binding characteristics to hCD200. We also report the identification of a closely related gene to hCD200R, designated hCD200RLa, and four mouse CD200R-related genes (termed mCD200RLa-d). CD200, ***CD200R*** , and ***CD200R*** -related genes were closely linked in humans and mice, suggesting that these genes arose by gene duplication. The distributions of the receptor genes were determined by quantitative RT-PCR, and protein expression was confirmed by a set of novel mAbs. The distribution of mouse and human ***CD200R*** was similar, with strongest labeling of macrophages and neutrophils, but also other leukocytes, including monocytes, mast cells, and T lymphocytes. Two mCD200 receptor-like family members, designated mCD200RLa and mCD200RLb,
were shown to pair with the activatory adaptor protein, DAP12, suggesting that these receptors would transmit strong activating signals in contrast to the apparent inhibitory signal delivered by triggering the ***CD200R*** . Despite substantial sequence homology with mCD200R, mCD200RLa and mCD200RLb did not bind mCD200, and presently have unknown
ligands. The CD200 receptor gene family resembles the signal regulatory proteins and killer Ig-related receptors in having receptor family members with potential activatory and inhibitory functions that may play important roles in immune regulation and balance. Because manipulation of the CD200- ***CD200R*** interaction affects the outcome of rodent disease models, targeting of this pathway may have therapeutic utility.

L20 ANSWER 3 OF 22 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN DUPLICATE 2
AN 2003214539 EMBASE
TI Modulation of CD200 receptors as a novel method of immunosuppression.
SO Expert Opinion on Therapeutic Patents, (1 May 2003) 13/5 (711-715).
Refs: 34
ISSN: 1354-3776 CODEN: EOTPEG
CY United Kingdom
DT Journal; Article
FS 022 Human Genetics
026 Immunology, Serology and Transplantation
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
LA English
SL English
AB Current methods of therapeutic immunomodulation are unsatisfactory. More effective and safer strategies are needed either to suppress immune responses for the treatment of transplant rejections, autoimmunity and allergy or to boost immunity against infectious diseases and cancer. This patent application proposes a novel approach towards these goals based on targeting CD200 receptors (***CD200R***). Whereas CD200 is expressed on lymphoid cells, neurons and endothelium, ***CD200R*** are mainly expressed on macrophages and myeloid cells. Crosslinking ***CD200R*** with CD200:Fc, an immunoadhesin made up of the CD200 extracellular region fused to the murine IgG2a Fc region or with anti- ***CD200R*** monoclonal antibodies (mAbs) can prolong allograft and xenograft survival and ameliorate collagen-induced arthritis in mice. Murine ***CD200R*** isoforms were identified by genomic analyses and partially characterised using specific mAbs acting presumably as receptor agonists. Myeloid dendritic cells (DCs) generated in the presence of anti- ***CD200R*** isoform mAbs were unable to stimulate the production of IFN-.gamma. and cytolytic lymphocytes in a mixed lymphocyte culture but induced the emergence of suppressor cells. When injected prior to transplantation, such DCs were capable of significantly prolonging skin allograft survival. Although the data suggest that ***CD200R*** might serve to dampen immune responses, further investigations are required to determine whether this approach would be applicable to human disease situations.

L20 ANSWER 4 OF 22 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 3
AN 2003:408966 BIOSIS
DN PREV200300408966
TI Control of myeloid activity during retinal inflammation.
AU Dick, Andrew D. [Reprint Author]; Carter, Debra; Robertson, Morag; Broderick, Cathryn; Hughes, Edward; Forrester, John V.; Liversidge, Janet
CS Division of Ophthalmology, University of Bristol, Bristol Eye Hospital, Lower Maudlin Street, Bristol, BS1 2LX, UK
a.dick@Bristol.ac.uk
SO Journal of Leukocyte Biology, (August 2003) Vol. 74, No. 2, pp. 161-166. print.
ISSN: 0741-5400 (ISSN print).
DT Article
General Review; (Literature Review)
LA English
ED Entered STN: 3 Sep 2003
Last Updated on STN: 3 Sep 2003
AB Combating myeloid cell-mediated destruction of the retina during inflammation or neurodegeneration is dependent on the integrity of homeostatic mechanisms within the tissue that may suppress T cell activation and their subsequent cytokine responses, modulate infiltrating macrophage activation, and facilitate healthy tissue repair. Success is dependent on response of the resident myeloid-cell populations (microglia (MG)) to activation signals, commonly cytokines, and the control of infiltrating macrophage activation during inflammation, both of which appear highly programmed in normal and inflamed retina. The evidence that tissue CD200 constitutively provides down-regulatory signals to myeloid-derived cells via cognate CD200-CD200 receptor (R) interaction supports inherent tissue control of myeloid cell activation. In the retina, there is extensive neuronal and endothelial expression of CD200. Retinal MG in CD200 knockout mice display normal morphology but unlike the wild-type mice, are present in increased numbers and express nitric oxide synthase 2, a macrophage activation marker, inferring that loss of CD200 or absent ***CD200R*** ligation results in "classical" activation of myeloid cells. Thus, when mice lack CD200, they show increased susceptibility to and accelerated onset of tissue-specific autoimmunity.

L20 ANSWER 5 OF 22 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 4
AN 2003:442827 BIOSIS
DN PREV200300442827
TI Characterization of human cd200 glycoprotein receptor gene located on chromosome 3q12-13.
AU Vieites, Jose Maria; de la Torre, Raul; Ortega, Maria Angeles; Montero, Trinidad; Peco, Jose Maria; Sanchez-Pozo, Antonio; Gil, Angel; Suarez, Antonio [Reprint Author]
CS Department of Biochemistry and Molecular Biology, University of Granada, 18071, Granada, Spain
asuarez@ugr.es
SO Gene (Amsterdam), (5 June 2003) Vol. 311, pp. 99-104. print.
ISSN: 0378-1119 (ISSN print).
DT Article
LA English
ED Entered STN: 24 Sep 2003
Last Updated on STN: 24 Sep 2003
AB An immunomodulatory membrane protein, ***CD200R*** displays an expression pattern restricted to myeloid cells in mice. It is the receptor for a ligand, CD200, expressed by a broad range of cell types. In this study, we describe the cloning and characterization of the human homologue of the ***CD200R*** gene. This gene maps closely to the CD200 gene on human chromosome 3q12-13. The human ***CD200R*** gene
spans a region of 52 kb, consists of nine exons, and encodes a 348-amino-acid cell-surface protein consisting of two IgFF domains in a typical V/C2 arrangement. The 59-amino-acid cytoplasmic domain has two tyrosine residues, one of which is contained within a NPXY motif. In common with other IgSF genes, the ***CD200R*** gene can generate different protein isoforms through alternative splicing. An alternative spliceout form, which has not yet been described in mice, encodes a 188-amino-acid truncated soluble polypeptide containing only the V immunoglobulin domain. In contrast to murine ***CD200R*** protein, the human membrane-bound and soluble ***CD200R*** proteins have an insertion of 23 amino acids at position 23, encoded by exon 2, which generates a putative dihydroxyacid dehydratase domain. The splicing of exon 2 generates two new isoforms, encoding the membrane and soluble proteins but lacking the dyhydroxyacid dehydratase domain. Northern-blot analysis shows that both membrane-bound and soluble isoforms are expressed in the thymus, liver, spleen and placenta. By RT-PCR, we have analyzed the expression of the four transcript variants in human placenta, spleen, liver, brain and kidney.

L20 ANSWER 6 OF 22 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2004:64670 BIOSIS
DN PREV200400062713
TI Structural and functional heterogeneity in the ***CD200R*** family of immunoregulatory molecules.
AU Lee, Lydia [Reprint Author]; Chen, Zhiqi [Reprint Author]; Wong, Simon; YuKai, Gary [Reprint Author]; Marsden, Philip A.; Gorczynski, Reginald M. [Reprint Author]
CS Transplant Division, Toronto General Hospital, 200 Elizabeth St, Toronto, ON, M5G 2C4, Canada
SO FASEB Journal, (April 14 2003) Vol. 17, No. 7, pp. C63. print.
Meeting Info.: 90th Anniversary Annual Meeting of the American Association of Immunologists. Denver, CO, USA. May 08-10, 2003. American Association

of Immunologists.
ISSN: 0892-6638 (ISSN print).
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 28 Jan 2004
Last Updated on STN: 28 Jan 2004

L20 ANSWER 7 OF 22 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2004:181049 BIOSIS
DN PREV200400181031
TI CD200 is a novel p53-target gene involved in apoptosis-associated immune tolerance.
AU Rosenblum, Michael D. [Reprint Author]; Olasz, Edit; Woodliff, Jeffrey E. [Reprint Author]; Johnson, Bryon D. [Reprint Author]; Orentas, Rimas J. [Reprint Author]; Truitt, Robert L. [Reprint Author]
CS Department of Pediatrics, Medical College of Wisconsin, Milwaukee, WI, USA
SO Blood, (November 16 2003) Vol. 102, No. 11, pp. 47a-48a. print.
Meeting Info.: 45th Annual Meeting of the American Society of Hematology. San Diego, CA, USA. December 06-09, 2003. American Society of Hematology.
CODEN: BLOOAW. ISSN: 0006-4971.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 7 Apr 2004
Last Updated on STN: 7 Apr 2004
AB During apoptotic cell death, biochemical processes modify self-proteins and create potential autoantigens. To maintain self-tolerance in the face of natural cell turnover, the immune system must prevent or control responses to apoptosis-associated autoantigens or risk autoimmuity. The molecular mechanisms governing this process remain largely unknown. CD200 is a transmembrane glycoprotein that imparts a negative immunoregulatory signal through its receptor (***CD200R***). We observed increased CD200 expression on CD11c+ dendritic cells (DCs) that were undergoing apoptosis in vivo. Since apoptotic DCs are thought to play a central role in the establishment and maintenance of peripheral tolerance to self-antigens, we sought to confirm that CD200 expression increases as DCs undergo apoptosis and determine whether CD200 on apoptotic DCs plays a role in the induction of immune tolerance. We used a model in which DCs spontaneously undergo apoptosis when cultured in the absence of growth factors to examine CD200 expression over time. Both CD200 mRNA and cell surface expression increased as splenic DCs underwent apoptosis. In quantitative real-time PCR assays, we observed >8-fold increases in CD200 mRNA after 24hrs of culture when approximately 70% of DCs were apoptotic. Sorting cultured DCs into Annexin V+ and Annexin V- subsets revealed expression of CD200 on Annexin V+ DCs to be >20X that of Annexin V- DCs. We next explored mechanisms that might be involved in the control of CD200 expression during apoptosis. p53 has been coined the "master regulator" of apoptosis because of its role in many of the signaling pathways initiated in apoptotic cells. p53 acts primarily as a DNA sequence-specific transcription factor. Sequence analysis revealed p53-response elements in both murine and human CD200 genes. We defined CD200 as a p53-target gene using an in vitro luciferase-reporter assay and by kinetic analysis of CD200 expression on DCs isolated from p53-/- mice. CD200 expression was significantly diminished in apoptotic DCs isolated from p53-/- mice; however, we detected a caspase-dependent, p53-independent pathway that led to CD200 expression in p53-deficient DCs. We used autologous mixed lymphocyte reaction (MLR) cultures to examine the effect of CD200 on the CD4-mediated T cell response to caspase-generated autoantigens. CD200 on apoptotic DCs (vs. CD200-/- DCs) significantly diminished pro-inflammatory cytokines (IFNgamma and TNFalpha) in autologous MLR cultures, but not IL-2 production or T cell proliferation. Finally, we examined the effect of CD200 on induction of immune tolerance in vivo using a well-characterized system of UVB-induced immunosuppression of contact hypersensitivity that is dependent on apoptotic DCs. CD200 was essential for induction of immune tolerance to haptenated self-proteins in this assay. Our data suggest that CD200-mediated signaling is a novel molecular mechanism whereby apoptotic DCs suppress reactivity to apoptosis-associated autoantigens and maintain peripheral tolerance in the steady state.

L20 ANSWER 8 OF 22 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2003:514607 BIOSIS
DN PREV200300511752
TI LACKING CD200 DOES NOT IMPAIR MACROPHAGE ABILITY TO RESPOND TO TGFBETA
DESPITE ACTIVATION AND HIGH NITRITE PRODUCTION IN STEADY - STATE.
AU Banerjee, D. [Reprint Author]; Sedgwick, J. D.; Nicholls, S. [Reprint Author]; Dick, A. D. [Reprint Author]
CS Division of Ophthalmology, University of Bristol, Bristol, UK
SO ARVO Annual Meeting Abstract Search and Program Planner, (2003) Vol. 2003,
pp. Abstract No. 725. cd-rom.
Meeting Info.: Annual Meeting of the Association for Research in Vision and Ophthalmology. Fort Lauderdale, FL, USA. May 04-08, 2003. Association for Research in Vision and Ophthalmology.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 5 Nov 2003
Last Updated on STN: 5 Nov 2003
AB Purpose:: Macrophage activation and conditioning during inflammation is dependent upon initial cytokine stimulation. Recent evidence of cognate suppression of macrophage activation via the CD200 receptor (***CD200R***) following CD200 engagement is supported by studies in CD200KO mice which display increased susceptibility to and early onset of experimental autoimmunity. We therefore wished to investigate if in the absence of CD200, macrophages remain responsive to further cytokine programming, which may be adapted therapeutically to suppress tissue damage. Methods: Experimental autoimmune uveoretinitits (EAU) was induced in CD200-/- (KO) and C57BL/6 Wild type (WT) mice following immunisation with IRBP-1-20 peptide with adjuvant. At days 15,25,32 post immunisation, retinal macrophages were isolated and function and ability to respond to cytokines was assessed via nitrite production, NOS2 expression and beta-glucuronidase expression with or without further cytokine stimulation in vitro. Results: In the absence of CD200, retinal macrophages have increased nitrite production, but nitrite production at height of disease, and their ability to respond to IFNgamma and TNF-mediated nitrite production is reduced compared to WT. In KO mice, macrophages still respond to TGFbeta-mediated suppression of nitrite production and are enabled to express beta-glucuronidase during resolution of disease. Conclusions: Loss of CD200 expression releases tonic macrophage suppression, as seen by increased NOS2 and nitrite production in the steady state, but macrophages do not respond to further cytokine-mediated nitrite production. CD200 did not regulate TGFbeta-mediated macrophage conditioning which may explain the ability to resolve inflammation despite constitutive macrophage activation.

L20 ANSWER 9 OF 22 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:906505 CAPLUS
DN 138:12292
TI Cloning and characterization of mouse CD200 receptor variants, and therapeutic use thereof in modulating immune response in animal transplantation and immune diseases
IN Gorczynski, Reginald M.; Marsden, Philip
PA Transplantation Technologies Inc., Can.; Trillium Therapeutics Inc.
SO PCT Int. Appl., 189 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002095030	A2	20021128	WO 2002-CA734	20020524
WO 2002095030	A3	20030821		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2001-292950P P 20010524
US 2002-369862P P 20020405
AB The present invention relates to CD200 receptor isoforms and modulators thereof and their use in methods of immune modulation and pharmaceutical compns. In particular, protein and cDNA sequences for three isoforms of the murine CD200 receptor called CD200R2a, CD200R2b and CD200R3a are provided. The inventors have also prepd. antibodies to the different isoforms of ***CD200R*** . Studies of using ***CD200R*** antibodies, co-administering the CD200 receptor with a CD200 peptide, preferably in the form of a sol. fusion protein, such as CD200:Fc, to modulate immune response are presented. The inventors have also shown that administering antibody fragments [e.g. Fab or F(ab')2 fragments] that bind to a CD200 receptor inhibits the immune suppression caused by CD200. Accordingly, in another aspect, the present invention provides a method of inhibiting immune suppression by administering an effective amt. of a CD200 receptor antagonist to a cell or animal in need thereof. Preferably, the antagonist is an agent that inhibits the interaction of the CD200 receptor with CD200.

L20 ANSWER 10 OF 22 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 5
AN 2002:425169 BIOSIS
DN PREV200200425169
TI A CD200Fc immunoadhesin prolongs rat islet xenograft survival in mice.
AU Gorczynski, R. M. [Reprint author]; Hu, J.; Chen, Z.; Kai, Y.; Lei, J.
CS Toronto Hospital, 200 Elizabeth Street, CCRW 2-855, Toronto, ON, M5G2C4, Canada
SO Transplantation (Baltimore), (June 27, 2002) Vol. 73, No. 12, pp. 1948-1953. print.
CODEN: TRPLAU. ISSN: 0041-1337.
DT Article
LA English
ED Entered STN: 7 Aug 2002
Last Updated on STN: 7 Aug 2002
AB Background: A solubilized form of the CD200 molecule, CD200Fc, has been shown to suppress allograft rejection and development of collagen-induced

arthritis in mice. We investigated whether the same molecule could prolong survival of rat islet xenografts. Methods: Streptozocin-treated mice, receiving injections with anti-asialo-GM1 antibody, received rat islets (apprx400/mouse) under the kidney capsule or injected into the portal vein, along with rapamycin treatment. Thereafter mice received injections of CD200Fc (10 mug/mouse/injection) or control mouse IgG2. Blood glucose was monitored daily. Some mice received additional injections of anti-CD200/- ***CD200R*** monoclonal antibodies. Results: Portal vein delivery of islets led to more extended resolution of diabetes than did transplantation under the kidney capsule. CD200Fc further prolonged survival in either case, an effect abolished by anti-CD200 or F(ab')2 anti- ***CD200R*** mAbs, but not by whole anti- ***CD200R*** (anti- ***CD200R*** Ig). Spleen cells taken from CD200Fc-treated mice showed polarization to type-2 cytokine production (interleukin-4, interleukin-10) on restimulation with rat splenocytes in culture, in comparison to cells from control mice (type-1 cytokines, interlutin-2, interferon-gamma). Conclusion: CD200: ***CD200R*** interactions are important in regulating rat islet xenograft survival.

L20 ANSWER 11 OF 22 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS
INC. on STN
DUPLICATE 6
AN 2002:614737 BIOSIS
DN PREV200200614737
TI Constitutive retinal CD200 expression regulates resident microglia and activation state of inflammatory cells during experimental autoimmune uveoretinitis.
AU Broderick, Cathryn; Hoek, Robert M.; Forrester, John V.; Liversidge, Janet; Sedgwick, Jonathon D.; Dick, Andrew D. [Reprint author]
CS Division of Ophthalmology, Bristol Eye Hospital, Lower Maudlin St., Bristol, BS1 2LX, UK
a.dick@bristol.ac.uk
SO American Journal of Pathology, (November, 2002) Vol. 161, No. 5, pp. 1669-1677. print.
CODEN: AJPAA4. ISSN: 0002-9440.
DT Article
LA English
ED Entered STN: 4 Dec 2002
Last Updated on STN: 4 Dec 2002
AB Recent evidence supports the notion that tissue OX2 (CD200) constitutively provides down-regulatory signals to myeloid-lineage cells via CD200-receptor (***CD200R***). Thus, mice lacking CD200 (CD200-/-) show increased susceptibility to and accelerated onset of tissue-specific autoimmunity. In the retina there is extensive expression of CD200 on neurons and retinal vascular endothelium. We show here that retinal microglia in CD200-/- mice display normal morphology, but unlike microglia from wild-type CD200+/+ mice are present in increased numbers and most significantly, express inducible nitric oxide synthase (NOS2), a macrophage activation marker. Onset and severity of uveitogenic peptide (1-20) of interphotoreceptor retinoid-binding protein-induced experimental autoimmune uveoretinitis is accelerated in CD200-/- mice and although tissue destruction appears no greater than seen in CD200+/+ mice, there is continued increased ganglion and photoreceptor cell apoptosis. Myeloid cell infiltrate was increased in CD200-/- mice during experimental autoimmune uveoretinitis, although NOS2 expression was not heightened. The results indicate that the CD200: ***CD200R*** axis regulates retinal microglial activation. In CD200-/- mice the release of suppression of tonic macrophage activation, supported by increased NOS2 expression in the CD200-/- steady state accelerates disease onset but without any demonstration of increased target organ/tissue destruction.

L20 ANSWER 12 OF 22 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS
INC. on STN
AN 2002:370490 BIOSIS
DN PREV200200370490
TI CD200Fc and anti- ***CD200R*** regulates collagen induced arthritis (CIA) in mice.
AU Gorczynski, Reginald M. [Reprint author]; Chen, Zhiqi [Reprint author]; Hu, Jiang [Reprint author]; Lee, Lydia [Reprint author]; Manuel, Justin [Reprint author]; Kai, Yu [Reprint author]
CS Transplant Research Division, Toronto Hospital, 200 Elizabeth Street, CCRW 2-855, Toronto, ON, M5G2C4, Canada
SO FASEB Journal, (March 22, 2002) Vol. 16, No. 5, pp. A1045. print.
Meeting Info.: Annual Meeting of Professional Research Scientists on Experimental Biology. New Orleans, Louisiana, USA. April 20-24, 2002.
CODEN: FAJOEC. ISSN: 0892-6638.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 3 Jul 2002
Last Updated on STN: 3 Jul 2002
AB Introduction: DBA/1 mice immunized with bovine collagen type-II in Complete Freund's Adjuvant (CFA), followed by boost in ICFA, develop arthritis (>22/30 mice) by 30 days. The relatively ubiquitously expressed molecule CD200 is implicated in immunosuppression, and the immunoadhesin CD200Fc blocks graft rejection. We asked whether CD200Fc regulates CIA. Methods: DBA/1 mice received CD200Fc at 3 day intervals after collagen immunization. Disease was monitored daily. Serum was sampled for cytokines and anti-collagen immunoglobulin. Spleen cells were assayed for anti-collagen responses on restimulation. Results: CD200Fc treated mice did not develop arthritis. Cells from CD200Fc treated mice produced less TNF and IFN in culture supernatants after restimulation in vitro than those from control (normal immunoglobulin, Ig) treated mice. Serum from CD200Fc mice contained less anti-collagen IgG, with more IgG2b and IgG3, and less TNF and IFN, than control mice. Similar regulation of disease induction was seen using anti-CD200 receptor Ig, which is believed to transmit intracellular (suppressive) signals following CD200 engagement. Conclusion: Immunotherapy with CD200Fc may regulate autoimmune disorders.

L20 ANSWER 13 OF 22 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS
INC. on STN
AN 2002:370417 BIOSIS
DN PREV200200370417
TI A CD200Fc immunoadhesin prolongs rat islet xenograft survival in mice.
AU Gorczynski, Reginald M. [Reprint author]; Hu, Jiang [Reprint author]; Chen, Zhiqi [Reprint author]; Kai, Yu [Reprint author]; Lei, Ji [Reprint author]
CS Transplant Research Division, Toronto Hospital, 200 Elizabeth Street, CCRW 2-855, Toronto, ON, M5G2C4, Canada
SO FASEB Journal, (March 22, 2002) Vol. 16, No. 5, pp. A1032. print.
Meeting Info.: Annual Meeting of Professional Research Scientists on Experimental Biology. New Orleans, Louisiana, USA. April 20-24, 2002.
CODEN: FAJOEC. ISSN: 0892-6638.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 3 Jul 2002
Last Updated on STN: 3 Jul 2002
AB Background: A solubilized form of the cell surface CD200 molecule, CD200Fc, suppresses allograft rejection and development of collagen-induced arthritis in mice. We investigated whether the same molecule prolonged survival of rat islet xenografts. Methods: Streptozocin-treated mice, injected with anti-asialo-GM1 antibody, received rat islets (apprx400/mouse) under the kidney capsule or injected into the portal vein (pv), along with rapamycin treatment. Thereafter mice received injections of CD200Fc (10mg/mouse/injection) or control mouse IgG2. Blood glucose was monitored daily. Some mice received additional injections of anti-CD200/- ***CD200R*** mAbs. Results: Pv delivery of islets led to better sugar control than did transplantation under the kidney capsule. CD200Fc further prolonged survival in both groups, an effect abolished by anti-CD200 or F(ab')2 anti- ***CD200R*** mAbs, but not by whole anti- ***CD200R*** . Spleen cells taken from CD200Fc treated mice showed polarization to type-2 cytokine production (IL-4, IL-10) on restimulation with rat splenocytes in vitro, unlike cells from control mice (type-1 cytokines, IL-2, IFNg). Conclusion: CD200: ***CD200R*** interactions can regulate rat islet xenograft survival.

L20 ANSWER 14 OF 22 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS
INC. on STN
DUPLICATE 7
AN 2002:576340 BIOSIS
DN PREV200200576340
TI Anti- ***CD200R*** ameliorates collagen-induced arthritis in mice.
AU Gorczynski, Reginald M. [Reprint author]; Chen, Zhiqi; Lee, Lydia; Yu, Kai; Hu, Jiang
CS Transplant Research Division, Toronto Hospital, 200 Elizabeth Street, CCRW 2-855, Toronto, ON, M5G 2C4, Canada
SO Clinical Immunology (Orlando), (September, 2002) Vol. 104, No. 3, pp. 256-264. print.
ISSN: 1521-6616.
DT Article
LA English
ED Entered STN: 7 Nov 2002
Last Updated on STN: 7 Nov 2002
AB Immunization of DBA/1 with 100 mug bovine collagen type II emulsified in Freund's adjuvant, followed by booster injection in incomplete adjuvant at 18 days, leads to development of arthritis in more than 70% of mice by 28 days postinjection. We have previously shown that the novel immunosuppressant molecule CD200Fc (linking an extracellular domain of CD200 with a murine IgG2a Fc region) can suppress induction of disease when given to mice from the time of collagen injection. This occurs in concert with a decrease in the serum levels of anti-collagen IgG (apprx50% reduction), with relatively more IgG2b and IgG3, decreased serum levels of TNFalpha and IFN-gamma, and decreased production of those same cytokines after restimulation of lymphocytes in vitro with collagen. Since CD200 induces suppression following engagement of a receptor (***CD200R***), known to be expressed on, among other cells, macrophages, we investigated whether infusion of anti- ***CD200R*** and/or CD200Fc would ameliorate established disease in DBA mice, when injections were begun following collagen immunization. Our data indicate an arrest of disease following either treatment, with modification of a number of immune parameters (serum and lymphocyte cytokine production) consistent with a general role for CD200: ***CD200R*** interactions in the regulation of induction and/or expression of autoimmune disorders. When a higher dose (250 mug/mouse) of anti- ***CD200R*** was infused into a group of overtly arthritic mice, a significant (apprx50%) decrease in arthritic joint score occurred over the 4-week treatment period.

L20 ANSWER 15 OF 22 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS
INC. on STN
AN 2002:487666 BIOSIS
DN PREV200200487666
TI Microglial regulation through interaction with neuronal ligands triggering myeloid inhibitory and activating receptors.
AU Sedgwick, J. D. [Reprint author]; Hoek, R. H. [Reprint author]; Cherwinski, H. [Reprint author]; Phillips, J. [Reprint author]; Ruuls, S.

[Reprint author]; Murphy, C. [Reprint author]; Joyce-Shaikh, B. [Reprint author]
CS DNAX Research Inc., Palo Alto, CA, USA
SO Journal of Neurochemistry, (June, 2002) Vol. 81, No. Supplement 1, pp. 66. print.
Meeting Info.: Thirty-Third Annual Meeting of the American Society for Neurochemistry. Palm Beach, Florida, USA. June 22-26, 2002.
CODEN: JONRA9. ISSN: 0022-3042.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 18 Sep 2002
Last Updated on STN: 18 Sep 2002

L20 ANSWER 16 OF 22 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 8
AN 2002:453404 BIOSIS
DN PREV200200453404
TI The same immunoregulatory molecules contribute to successful pregnancy and transplantation.
AU Gorczynski, Reginald M. [Reprint author]; Hadidi, Sima; Yu, Gary; Clark, David A.
CS Toronto Hospital, 101 College Street W., CCRW 2-855, Toronto, ON, M5G2C4,
Canada
rgorczynski@uhnres.utoronto.ca
SO American Journal of Reproductive Immunology, (July, 2002) Vol. 48, No. 1, pp. 18-26. print.
ISSN: 1046-7408.
DT Article
LA English
ED Entered STN: 21 Aug 2002
Last Updated on STN: 21 Aug 2002
AB PROBLEM: At least two dendritic cell-associated molecules have been shown to contribute to the successful outcome of organ and tissue allografts in mice, namely CD200 and MD-1. CD200 is up-regulated in rodent transplantation models where successful inhibition of rejection is accomplished, and is believed to signal immunosuppression following engagement of a receptor, ***CD200R*** , on macrophages and/or gammadelta T-cell receptor (gammadelta TCR+ cells MD-1 is implicated in controlling expression of costimulatory molecules including CD80/CD86 which induce an immunorejection response, and thus inhibition of MD-1 expression also facilitates increased graft survival MD-1 also stabilizes expression of CD14, part of the receptor complex for LPS. As well as the inhibition of rejection which follows blockade of MD-1 expression and/or augmentation of CD200 expression, an altered polarization in cytokine production is seen, with increased expression of interleukin-4 (IL-4), IL-10 and transforming growth factor-beta (TGF-beta), and decreased IL-2, interferon-gamma (IFN-gamma) and tumor nerosis factor-alpha (TNF-alpha). Successful pregnancy in allopregnant mice also depends upon control of graft rejection mechanisms. Proinflammatory T-helper 1 (Th1) cytokines (TNF-alpha+IFN-gamma+ IL-1) have been shown to cause spontaneous abortion
in mice by activating a novel prothrombinase, fibrinogen-like peptide (fibroleukin) fgl2, which may promote fibrin deposition in the graft rejection process; expression of IL-10, TGF-beta, and progesterone-induced blocking factor (PIBF) in contrast leads to lowering of abortion rates. Interestingly, the spontaneous abortion rates in abortion-prone CBAXDBA/2 matings and in the low abortion rate CBAXBALB/c matings were lower than the frequency of implantation sites showing fibrinhi+fgl2 (mRNA)hi, implying regulation of the pro-abortion consequences of fgl2 expression. METHODS: We have investigated, by in situ hybridization, CD200, MD-1 and fgl2 expression in implantation sites in different strains of mice, and studied the effects of anti-MD-1, anti-CD200 and CD200Fc immunoadhesin on fetal and allograft survival. The role of indoleamine dioxygenase (IDO) was evaluated. RESULTS: CD200 mRNA expression occurred in the same sites
as fgl2 mRNA. Anti-CD200 antibody raised the abortion rate to predicted levels, and infusion of a CD200 immunoadhesin reduced the abortion rate, as did an anti-MD-1 antibody. The latter also improved organ and tissue graft survival. Suppression by antigen-presenting macrophages triggered by CD200 is dependent upon intact IDO activity. CONCLUSION: Regulation of CD200 and MD-1 expression may control both pregnancy and allograft survival.

L20 ANSWER 17 OF 22 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2003:143315 BIOSIS
DN PREV200300143315
TI Role of Myeloid Regulatory Molecule CD200 in Tolerance Induction Via the Nasal Mucosa.
AU Liversidge, J. M. [Reprint Author]; Dick, A.; Calder, C.; Sedgwick, J.; Taylor, N. [Reprint Author]
CS Ophthalmology, University of Aberdeen, Aberdeen, UK
SO ARVO Annual Meeting Abstract Search and Program Planner, (2002) Vol. 2002,
pp. Abstract No. 1544. cd-rom.
Meeting Info.: Annual Meeting of the Association For Research in Vision and Ophthalmology. Fort Lauderdale, Florida, USA. May 05-10, 2002.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 19 Mar 2003
Last Updated on STN: 19 Mar 2003
AB Purpose: A myeloid regulatory role for CD200 has been proposed since disruption of signalling via ***CD200R*** in animal models leads to an accumulation of DAP-12+ F4/80+ cells within normal lymphoid and non-lymphoid tissues predisposing the animal to autoimmune inflammation. The purpose of this study was to examine the phenotype and function of CD200-/- (KO) macrophages and dendritic cells compared to CD200+/+ (WT) in the context of tolerance induction to EAU via the nasal mucosa. Methods: Respiratory tract myeloid cells (RTMC), draining cervical lymph nodes (CLN), submandibular lymph nodes (SMLN) and spleens (SPL), from CD200 WT
or KO C57Bl/6 mice were examined by FACSs analysis and immunocytochemistry
at time zero (control) or at intervals following instillation of IRBP peptide 1-20 (50ug) or PBS intranasally (minimum of 3 animals at each time point). Groups of 4 WT or KO animals were tolerised using 50mg peptide 1-20 or control PBS and then challenged 10 days later by immunisation with 500ug peptide 1-20 in FCS with pertussis toxin as additional adjuvant. Control mice were challenged with PBS in FCS. Eyes were taken at day 16 post immunisation and scored for retinal damage. Results: FACS analysis of RTMC indicated that cells were of an immature APC phenotype and expressed lower levels of MHC class II than WT. Significant reductions in MHC Class II+ expression by both dendritic cells and macrophages in lymphoid tissue from KO mice were also found. Image analysis of immunostained sections of lymphoid tissue sampled from animals at 0-48h post intranasal challenge with peptide 1-20 confirmed this and that low MHC class II expression by KO cells persisted for up to 48h. STAT-4 expression by both WT and KO lymphoid cells was generally weak, although a few strongly positive cells were observed at 24-48 hours. In contrast, STAT 6 was strongly expressed particularly by WT cells and was increased over time with strongest expression in T cell areas of CLN at 4h-48h. Conclusion: Although the DAP-12 activated phenotype of myeloid cells from CD200-/- mice pre-disposes these animals to autoimmunity the activation phenotype does not appear to extend to MHC class II expression or dominant expression of Th1 signalling STAT4 protein in our model. However, dominant expression of STAT6 Th2 signalling protein may contribute to the low levels of EAU pathology in the C57/Bl6 mouse and the reduced MHC class II expression that we observed.

L20 ANSWER 18 OF 22 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 9
AN 2001:429194 BIOSIS
DN PREV200100429194
TI Transplant tolerance modifying antibody to CD200 receptor, but not CD200, alters cytokine production profile from stimulated macrophages.
AU Gorczynski, Reginald M. [Reprint author]
CS Toronto Hospital, 200 Elizabeth Street, CCRW 2-855, Toronto, ON, M5G2C4, Canada
SO European Journal of Immunology, (August, 2001) Vol. 31, No. 8, pp. 2331-2337. print.
CODEN: EJIMAF. ISSN: 0014-2980.
DT Article
LA English
ED Entered STN: 12 Sep 2001
Last Updated on STN: 22 Feb 2002
AB Increased C57BL/6 allograft survival following donor-specific dendritic cell (DC) portal vein (pv) pre-transplant immunization of C3H mice is associated with increased expression of the molecule CD200 on DC, delivery of suppressive signals by ***CD200r*** + macrophages, and polarization in cytokine production towards type-2 cytokines. Infusion of anti-mouse CD200 monoclonal antibody abolishes these effects. We have used whole Ig, and F(ab')2 fragments, of anti-CD200 and anti- ***CD200r*** mAb to explore the relative signaling role of CD200+ versus ***CD200r*** + cells in suppression of type-1 cytokine production in mixed leukocyte cultures (MLC), and enhanced graft survival in vivo. Simple neutralization of CD200 (even by F(ab')2 antibody) reversed CD200-mediated suppression. However, only whole anti- ***CD200r*** antibody was effective in stimulating suppression from ***CD200r*** + cells. Suppression of cytokine induction following cross-linking of ***CD200r*** + cells in vitro was attenuated by anti-IL-6 mAb. Our data are consistent with the hypothesis that ***CD200r*** itself delivers the crucial intracellular signal leading to immunosuppression, a feature likely of importance in autoimmunity and transplantation.

L20 ANSWER 19 OF 22 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:687850 CAPLUS
DN 136:245923
TI Does successful allopregnancy mimic transplantation tolerance?
AU Gorczynski, Reginald M.; Yu, Gary; Clark, David A.
CS RM CCRW-2-855, Toronto Hospital, Toronto, ON, M5G2C4, Can.
SO Graft (Thousand Oaks, CA, United States) (2001), 4(5), 338-345
CODEN: GTOCA5; ISSN: 1522-1628
PB Sage Science Press
DT Journal; General Review
LA English
AB A review. The dendritic-cell assocd. mol. CD200 is up-regulated in rodent transplantation models where successful inhibition of rejection is accomplished. The mechanism by which CD200 achieves this effect involves signaling a receptor, ***CD200r*** , on macrophages and/or .gamma..delta.TCR+ cells, both of which have been implicated in adoptive transfer of tolerance. In addn. to inhibition of rejection, increased

expression of CD200 is assocd. with altered polarization in cytokine prodn., with increased expression of IL-4, IL-10 and TGF.beta., and decreased IL-2, IFN.gamma. and TNF-.alpha.. Inhibition of rejection can thus be adoptively transferred by IL-10/TGF.beta. and a CD200 immunoadhesin and in turn can be inhibited by neutralizing these cytokines or by functional blockade of CD200 expression. Successful pregnancy in allopregnant mice can also be viewed as dependent upon control of graft rejection. Proinflammatory Th1 cytokines (TNF-.alpha. + IFN-.gamma. + IL-1) can cause spontaneous abortion in mice by a mechanism which involves a novel prothrombinase, fgl2, which promotes fibrin deposition. However, we found that spontaneous abortion rates in abortion-prone CBA .times. DBA/2 matings and in low abortion rate CBA .times. BALB/c matings were lower than the frequency of implantation sites showing fibrinhi + fgl2 mRNAhi. CD200 expression was present in the same sites as fgl2 mRNA, and neutralization of this CD200 expression by anti-CD200 antibody raised the abortion rate to predicted levels. Conversely, a CD200 immunoadhesin dramatically reduced the abortion rate. We hypothesize that in addn. to its role in organ and tissue allograft rejection, CD200 expression is involved in the prevention of spontaneous abortion triggered by cytokine up-regulation of fgl2 at the feto-maternal interface.

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L20 ANSWER 20 OF 22 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

DUPLICATE 10

AN 2001:578114 BIOSIS

DN PREV200100578114

TI Evidence of a role for CD200 in regulation of immune rejection of leukaemic tumour cells in C57BL/6 mice.

AU Gorczynski, R. M. [Reprint author]; Chen, Z.; Hu, J.; Kai, Y.; Lei, J.

CS The Toronto Hospital, 200 Elizabeth Street, CCRW 2-855, Toronto, Ontario, M5G2C4, Canada
rgorczynski@transplantunit.org

SO Clinical and Experimental Immunology, (November, 2001) Vol. 126, No. 2, pp. 220-229. print.
CODEN: CEXIAL. ISSN: 0009-9104.

DT Article

LA English

ED Entered STN: 12 Dec 2001
Last Updated on STN: 25 Feb 2002

AB Increased expression of the molecule CD200 in mice receiving renal allografts is associated with immunosuppression leading to increased graft survival, and altered cytokine production in lymphocytes harvested from the transplanted animals. Preferential production of IL-4, IL-10 and TGFbeta occurs on donor-specific restimulation in vitro, with decreased production of IL-2, IFNgamma and TNFalpha. These effects are enhanced by simultaneous infusion of CD200 immunoadhesin (CD200Fc) and donor CD200 receptor (***CD200r***) bearing macrophages to transplanted mice. C57BL/6 mice do not normally resist growth of EL4 or C1498 leukaemia tumour cells. Following transplantation of cyclophosphamide-treated C57BL/6 with T-depleted C3H bone marrow cells, or for the EL4 tumour, immunization of C57BL/6 mice with tumour cells transfected with a vector encoding the co-stimulatory molecule CD80 (EL4-CD80), mice resist growth of tumour challenge. Immunization of C57BL/6 mice with EL4 cells overexpressing CD86 (EL4-CD86) is ineffective. Protection from tumour growth in either model is suppressed by infusion of CD200Fc, an effect enhanced by co-infusion of ***CD200r*** + macrophages. CD200Fc acts on both CD4+ and CD8+ cells to produce this suppression. These data are consistent with the hypothesis that immunosuppression following CD200-***CD200r*** interaction can regulate a functionally important tumour growth inhibition response in mice.

L20 ANSWER 21 OF 22 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

AN 2001:557960 BIOSIS

DN PREV200100557960

TI Role of CD200: ***CD200r*** interactions in regulating islet xenograft rejection.

AU Gorczynski, R. [Reprint author]; Hu, J. [Reprint author]; Kai, Y. [Reprint author]; Wong, A. [Reprint author]; Lei, J. [Reprint author]

CS Toronto Hospital, Toronto, Canada

SO Xenotransplantation, (August, 2001) Vol. 8, No. Supplement 1, pp. 79. print.
Meeting Info.: VI Congress of the International Xenotransplantation Association. Chicago, Illinois, USA. September 29-October 03, 2001.
ISSN: 0908-665X.

DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Poster)

LA English

ED Entered STN: 5 Dec 2001
Last Updated on STN: 25 Feb 2002

L20 ANSWER 22 OF 22 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

AN 2001:558262 BIOSIS

DN PREV200100558262

TI Regulation of MD-1 expression controls skin xenograft rejection.

AU Hadidi, S.; Gorczynski, R.

SO Xenotransplantation, (August, 2001) Vol. 8, No. Supplement 1, pp. 78. print.
Meeting Info.: VI Congress of the International Xenotransplantation Association. Chicago, Illinois, USA. September 29-October 03, 2001.
ISSN: 0908-665X.

DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Poster)

LA English

ED Entered STN: 5 Dec 2001
Last Updated on STN: 25 Feb 2002

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